COPY

Plant Industry Sta.
Beltsville, Md.
January 29, 1946

Dr. N. C. Fassett
Botany Dept.
Univ. of Wisconsin
Madison, Wisconsin

Dear Dr. Fassett:

We are shipping a package of duplicates of your Colombian collections, plus a few other things of groups in which you are interested. We would appreciate any identifications you can make of the latter. We have removed a set of the Colombian ones for this herbarium and a set for the University at Bogota.

Sincerely,

F. R. Fosberg
Associate Botanist

Fasset

maps added to case 182 = miscel. Fam.

" " " " 199 = Rubiaceae

Some (a few) spec. have no labels

also a number of maps were not matched

up with the corresponding collection no.

Colombian collections of N.C. Fawett
on loan to University of Wisconsin Herbarium.

25656	Polygonum nepalense.	
25658	" "	
25250	P. punctatum	
25512	" "	
25044	" "	
25078	" "	
25668	" "	
25765	" "	Mass collection
25146	" "	Mass collection.
25144	" "	
25149	" "	
25889	" "	Mass collection
25878	P. Persicaria ?	
25025	" " ?	
25888	P. hydropiperoides ~~Mass~~	
25300	P. segetum	
25830	" "	Mass collection.
25657	" "	
25901	" "	Mass collection
25916	Callitriche	
25809	"	
25808	"	
25807	"	
25796	"	
25918	"	
25932	"	
25071	"	

See Folder 1, Duplicate Key Copy entered in num. list

BOTANICAL COLLECTIONS OF N. C. FASSETT IN COLOMBIA, 1944. 25095 - 25131

26001 - 26096 are collections in Bogota, in Santander Dept. and Norte de Santander Dept.; the data are on the sheets.

SANTANDER DEPARTMENT

April 22. Mule path to Bolivar, 10 km. N.W. of Velez.
25095. Cinchona pubescens. Tree 5 cm. D.B.H., 4 m. tall, in ravine 3 km. N.E. of Bolivar. BARK.
25096. do. Mass collection.
25097. Gramineae. Rocky side of path.
25098. Andropogon. Rocky side of path.
25099. do. Rocky side of path.
25100. Phytolacca. Mass collection along about 1 km. of path.

April 23. ½ km. S. of Berveo, 15 km. N.W. of Velez. 7000 ft. alt.
25101. Cinchona pubescens. Mass collection.
25102. Cinchona pubescens. Tree 20 cm. D.B.H., 12 m. tall, scattered on hillside. BARK.
25103. Cinchona pubescens. Tree 30 cm. D.B.H., 12 m. tall. BARK.
25104. Cinchona officinalis. Tree 5 cm. D.B.H., 2.5 m. tall, on lightly wooded hillside. BARK 3.7 TCA.
25105. Cinchona officinalis. Tree 5 cm. D.B.H., 2 m. tall. BARK 3.4 TCA.
25106. Cinchona officinalis. Mass collection.
25107. Aroid. Moist place in woods.
25108. Cinchona of icinalis. Stump sprouts 4cm. tall.
25109. Cinchona officinalis. Saplings 1.5 m. tall.
25110. Rubiaceae. "Quinone" Wooded hillside.
25111. Rubiaceae? Wooded hillside.

April 23. Berveo, along mule path toward Bolivar. 7000 ft. alt.
25112. Taraxacum. Mass collection.
25113. Phytolacca. Mass collection.
25114. Rorippa. Moist places.
25115. Gramineae.
25116. Parasite on 25115.
25117. Lycolodium. Moist bank.

April 24. Olla de Banama, 15 km. W. of Bolivar.
25118. Cinchona officinalis. Tree 10 m. tall. Densely wooded hillside. 6800 ft. alt., BARK 5.9 TCA.
25119. Cinchona officinalis. Tree 1o cm. D.B.H., 6 m. tall. Densely wooded hillside. 6500 ft. alt. BARK 4.2 TCA.
~~25123. Rubiaceae. "Quinone" Tree 20 cm. D.B.H., 6 m. tall. Densely wooded hillside. 6500 ft. Alt. BARK.~~
25120. Tree. Densely wooded hillside. 6900 ft..alt.
25121. Rubiaceae. Densely wooded hillside. 6900 ft. alt.
25122. Agrostis. Hilltop 1 km. W. of Bolivar. Alt. 9000 ft.
25123. Rubiaceae. "Quinone" Tree 20.cm. D.B.H., 6 m. tall. Densely wooded hillside. Alt.,6500 ft. BARK.
25124. Sanicula. Densely wooded hillside. Alt. 6900 ft.
25125. Viola. " " " " " "
25126. Melastomaceae. " " " " " "
25127. Rubiaceae. " " " " " "
25128. Phytolacca. Mass collection along path.
25129. Cinchona pubescens. Londres, 10 km. W. of Bolivar. Alt. 9000 ft. BARK.

25130. Orchidaceae. Fl. orange. Path 1 km. W. of Bolivar. Alt. 9000 ft.
25131. Orchidaceae. " " " " " " " " " " "

25132-25170

SANTANDER 2 DEPARTMENT

April 26. El Espejo, near La Paz, NE. of Velez. Alt. 7300 ft.
25132. Cinchona officinalis. Stump sprouts 3 cm. thick, 2 m. tall, from trees cut 6 months ago. BARK 0.8 TCA.
25133. Cinchona officinalis. Similar sprouts.m BARK 2.0 TCA.
25134. Rubiaceae. "Quinone" of "Quina amarilla" Tree 15 cm. D.B.H., 6 m. tall. BARK, NMTT
25135. Rubiaceae. "Quinone"
25136. Tree (said to be mistaken for Quina)
25137. Rubiaceae? Deep woods.
25138. Rubiaceae? Recently cleared woods.
25139. Rubiaceae? Recently cleared woods.
25130. Phytolacca. Clearing.
25141. Nasturtium. Stream in pastured hillside.
25142. Juncus. Mass collection on pastured hillside.

April 26. Thickets near Chipata, NE. of Velez.
25143. Oxalis.

April 27. La Sabaneta, E. of Velez. Alt. 7200 ft.
25144. Polygonum. Wet spots on pastured hillside.
25145. Begonia. Fl..scarlet. Among down timber in cleared woods.
25146. Polygonum. Mass collection.
25147. Phytolacca. Mass collection. Among down timber in cleared woods.
25148. Eleocharis . Along a little stream, pastured hillside.
25149. Polygonum. Wet spots on pastured hillside.
25150. Juncus. Wet spots on pastured hillside.

April 27. Mule path, Puente Grande, NE. of Velez.
25151. Phytolacca/

April 27. Trail from La Paz to Velez.
25152. Equisetum. Stems 2 m. tall.
25153. Polypodium. Rocky bank.

May 5. Region about La Paz, NE. of Velez.
25156. Cassia. Pathway near Chipata. Fl. yellow.
25157. Monina. Fl. blue & yellow. Pathway near Chipata.

May 5. Region about La Paz, NE. of Velez.
25158. Cinchona sp. Tree 5 cm. D.B.H., 4 m. tall. Dense thicket, Agua Blanca. BARK Grahe negative. Alt. 6250 ft.
25159. Gramineae. Pathway in thicket, Agua Blanca. Alt. 6250 ft.
25160. Cinchona sp. Mass collection. Dense thicket, Agua Blanca.
25161. Rubiaceae. Pathway, Agua Blanca. Alt. 6250 ft.
25162. Rubiaceae. Pathway, Agua Blanca. Alt. 6250 ft.
25163. Cinchona sp. Thicket, Agua Blanca. Trunk 8 cm. D.B.H., 8 m. tall. BARK Grahe negative. Canta Ranas.
25164. Cinchona sp. Thicket, Canta Ranas. Tree 6 cm. D.B.H., 5 m. tall. BARK Grahe negative.
25165. Cinchona sp. Densely wooded ridge, Mico Cargado. Alt. 6450.
25166. Goodyeara. " " " " " " "
25167. Cinchona sp. Corolla light yellowish-green in bud, white in flower. Densely wooded ridge, Mico Cargado. Alt. 6450.
25168. Cinchona sp. Flowering branch. Densely wooded ridge, Mico Cargado.
25169. Cinchona sp. Sterile shoot. " " " " "
25170. Cinchona sp. Densely wooded ridge. Mico Cargado. Alt. 6450. BARK Grahe negative.

25171
25200

SANTANDER DEPARTMENT

May 5. Region about La Paz, NE. of Velez (continued)

25171. Compositae. Woody, 3 m. tall. Thicket beside path, Canta Ranas.
25172. Rubiaceae. "Quinone" Woods, Canta Ranas. Alt. 6400 ft.
25173. Cinchona sp. Corolla fleshy, lobes and upper part of tube pale greenish-yellow ~~peach-color~~ without. Wooded ridge, Canta Ranas. Alt. 6400 ft. BARK Grahe negative.
25174. Cinchona sp. Corolla fleshy, lobes and upper part of tube peach-color without. Wooded ridge, Canta Ranas. Alt. 6400 ft.
25175. Cinchona sp. Corolla floshy, lobes and upper part of tube pale greenish-yellow without. Wooded ridge, Canta Ranas. Alt. 6400 ft.
25176. Juncus. Pastured hillside, Canta Ranas. Alt. 6400 ft.
25177. Malvaceae. Coarse herb 2 m. tall; corolla and filament tube yellow, anthers cream or yellow, stigmas scarlet. Moist pasture, Canta Ranas. Alt. 6300 ft.
25178. Cinchona pubescens. Stump sprouts; only tree seen in region. Pasture, Canta Ranas. Alt. 6300 ft.
25179. Cinchona officinalis. Seedling or stump sprout, 1 m. tall; Red on stem, older stipules, midrib of young stipules, petioles, midribs above, and leaves below. Edge of woods, Canta Ranas, Alt. 6400 ft.
25180. Monina. Buds green or dark blue; flowers blue with yellow keel; fruits scarlet. Canta Ranas. Alt. 6400 ft.
25181. Phytolacca. Mass collection, path from Canta Ranas to Agua Blanca.

May 6. La Paz, North east of Velez. Alt. 6300 ft.

25182. Taraxacum. Mass collection. Street in town.
25183. Cinchona pubescens. Tree 30 cm. D.B.H., overhanging stream in ravine ½ km. N.E. Corolla tube scarlet without, amd within except for ciliate margin.
25184. Pteridium. Trail N E. Only one lower dividion of frond collected.
25185. Citrus. Cultivated, hotel.
25186. Daucus. Pathway up ravine ½ km. N.E.
25187. Cinchona pubescens. Stump sprout. Ravine ½ k.. N.E.
25188. Rubus (Eubatus) Pathway in pastured ravine.
25189. Araceae. Wet wooded bank near stream. Spathe usually light pink, white of some clones.
25190. Cyclanthaceae. Edge of stream, partly in water.
25191. Melastomaceae. Tree, ¼ km. northof town.
25192. Andropogon. Clay soil along trail.
25193. Piperaceae.

May 7. West of La Paz on trail to Recreo. North East of Velez.

25194. Ladenbargia. Tree 8 m. tall. 1.5 km. W. of La Paz. Alt. 6800 ft. BARK, NMTT.
25195. Cinchona sp. 1 km. W. of La Paz.
25196. Cinchona sp. Trail between La Paz and Recreo. Alt. about 5000 ft.
25197. Usnea. "Barba de palo" On trees. Alt. about 4500 ft.
25198. Cephaelis. About 6 km. W. of La Paz.
25199. Phytolacca. 5 km. W. of La Paz.
25200. Cinchona officinalis. Stump sprout. 1 km. W. of La Paz.

25201-25232

SANTANDER DEPARTMENT

May 8. Cerro de Quinal, Recreo. Alt. 3600 ft. N. of Velez.
25201. Cinchona Henleana. Tree 5 m. tall, 8 cm. D.B,H. BARK.
25202. Cinchona Henleana. Single sterile stem in woods, 3 m. tall.
25203. Rubiaceae.
25204. Remijia pedunculata. BARK 2.5 TCA.
25205. Remijia pedunculata. Tree with insedt galls. BARK 3.3 TCA,2.9 QS .
25206. Remijua pedunculata. Mass collection.
25207. Remijia pedunculata. Tree with insedt galls. BARK, NMTT/ 1.9 TCA.
25208. Cinchona Henleana. Corolla white, with light greenish-yellow tube. BARK, NMTT
25209. Cinchona Henleana. Corolla white, with light greenish-yellow tube. BARK, NMTT.
25210. Palmae. Leaves from a small tree, fruit from a tall one.
25211. Cinchona Henleana. Mass collection.
25212. Eryngium. In garden.

May 9. Between Recreo and Mira Buenos, about 25 km. N.W. of Velez.
25213. Cinchona Henleana. Alt. 2800 ft. BARK, NMTT.
25214-16. Cinchona Henleana. Sterile tips of young trees.
25217. Gramineae. Grown in clearings for horse feed,
25218. Phytolacca. Clearing east of Quebrada la Negra. Only one seen.
25219. Warzewiczia. Recreo.

May 10. Between Mira Buenos and Jordan, about 50 km. N. of Velez.
25220. Cinchona Henleana. Woods west of Rio Quirata. Alt. 2600 ft. BARK.
25221. ? Small little-branched tree, 5 m. tall.
25222. Pasoqueria. Corolla white. East side of ridge between Rio Quirata and Jordan. Alt. 3300 ft. BARK, NMTT.
25223. Cinchona Henleana. Summit of ridge between Rio Quirata and Jordan. Alt. 3800 ft. BARK, NMTT.
25224. Melinis. Mira Buenos. Common.

May 13. Velez.
25225. Taraxacum. Mass collection, city streets.

May 14. Jordan, 50 km. N. of Velez. With H. St. John.
25226. Ladenbergia. Tree 10 m. tall. 30 cm. D.B.H.; leaves dark green with veins reddish beneath. Forest r mnant, alt. 3100 ft.
25227. Cinchona Henleana. Tree 8 m. tall, 20 cm. D.B.H.; leaves dark shining green; corolla white. Temperate forest, alt. 2800 ft. BARK.
25228. Remijia pedunculate. Tree 7 m. tall, 10 cm. D.B.H.; leaves dull green. Patch of temperate forest, alt. 2800 ft. BARK.
25229. Remijia pedunculata. Mass collection.
25230. Ladenbergia. Tree 15 m. tall, 30 cm. D.B.H.; leaves shining green. Patch of temperate forest, alt. 2600 ft.
25231. Ladenbergia. "Brazil" Tree 12 m. tall, 30 cm. D.B.H.; leaves shining above, lighter beneath. Temperate forest, alt. 2600 ft. BARK
25232. Miliaceae. Tree 15 m. tall, 30 cm. D.B.H.; leaves crowded and plume-like on branch; calyx pink; anthers yellow. Forest by stream, alt. 2700 ft.

25233-25253

SANTANDER DEPARTMENT

May 14. Jordan, 50 km. N. of Velez. With H. St. John. (continued)
25233. Rubiaceae. Tree 8 m. tall, 10 cm. D.B.H.; leaves above dark shining, below pale green; calyx pink; corolla blue;.fruit dry. Temperate forest, 2700 ft.
25334. Phytolacca. Mass collection. Sprawling herbs 1-2 m. tall. Several km. of trail and clearings, La Venezia.
25235. Rubiaceae. Shrib 1.5 m. tall; leaves above dark shining green, below green; inflorescence yellowish green. Temperate forest, alt. 2600 ft.

May 15. Jordan to La Soledad, 50 km. N. of Velez. With H. St.John.
25236. Remijia pedunculata. Tree 5 m. tall, 5 cm. D.B.H.; flowers white; bark peels hard. El Peligro, 4 km. N.E. of Jordan. Patch of temperate forest, alt. 3200 ft. BARK.
25237. Remijia pedunculata. Sucker shoots.
25238. Remijia pedunculata. Jolandas, 6 km. N.E. of Jordan. Alt. 3300 ft.
25239. Cephaelis. Shrub 1.5 m. tall; bracts rose magenta.
25240. Phytolacca. Mass collection. La Soledad, 20 km. N.E. of Jordan; none seen en route.

May 16. La Soledad to La Putana, 20 km. N.E. of Jordan, 70 km. N.E. of Velez. With H. St.John.
25241. Cyperaceae. Erect 2 m. then sprawling on bushes. Wet tropical forest, 3200 ft.
25242. Carica. "Papaya de monte" 3 m. tall; fruit said to be full size but green, yellow when ripe, edible. Moist tropical jungle, alt. 3200 ft.
25243. Cinchona Henleana. Tree 10 m. tall, 10 cm. D.B.H. Common in moist tropical jungle, La Putana, alt. 3200 ft.
25244. Rubiaceae. "Graniso" Shrub 1.5 m. tall; flowers white. Wet tropical forest. alt. 3200 ft.
25245. Cinchona Henleana. Mass collection. La Putana.

May 17. 10 km. N.E. of Jordan, 60 km. N. of Velez. With H. St.John.
25246. Rubiaceae. Corolla orange; calyx light green and fleshy. Rocky bank (of Rio de la Vuida?).

May 19. Jordan, 50 km. N. of Velez.
25247. Oxalis. Weed in window box.
25248. Sida. Roadside weed.
25249. Sida. Roadside weed. Flowers yellow.
25250. Polygonum. Roadside weed.
25253. Chlorideae. Roadside weed.

252251-52

see p.6.

25254 - 25281

SANTANDER DEPARTMENT

May 21. Jordan, 50 km. N. of Velez.

25251. Joosia. Tree 6 m. tall, 5 cm. D.B.H.; stipules standing at almost 90 degrees as they age; corolla 1.5 cm. wide, white, with lobes bifid and irregular-margined. Steep heavily wooded slopw, Quebrada de Pompeia, alt. 2600 ft. BARK.
25252. Cinchona sp. San Jeronimo, alt. 2600 ft. BARK.
25253. (see after 25250)
25254. Ladenbergia? Corolla white, with strong odor of Jasmine.
25255. Joosia.
25256. Joosia. Sprouts.
25257. Calycophyllum? Steep heavily wooded slope, Quebrada de Pompeia.
25258. Calycophyllum? Fruiting inflorescence fallen from tree.
25259. Polypodiaceae. Rotting log near Quebrada de Pompeia.
25260. Polypodiaceae. " " " " " "

May 22. Jordan, 50 km. N. of Jordan.

25261. Joosia. Stipules spreading at almost 90 degrees in age. About 2 km. E. of Jordan on path to Mira Buenos.
25262. Gramineae. Overhanging trial, 4 m. tall, much branched. About 1 km. N.W. of Mira Buenos.

May 23. Mirasol, E. of Jordan.

25263. Remijia pedunculata. Densely wooded hillside, 2700 ft. Fruits on tree felled 6 months ago.
25264. Remijia pedunculata. Tree 5 m. tall, 5 cm. D.B.H. BARK.
25265. Remijia pedunculata. Tree 12 m. tall, 20 cm. D.B.H., lower 3 m. stripped 6 mo. ago; still living, with fruits. BARK.
25266. Remijia pedunculata. Tree 10 m. tall, 10 cm. D.B.H. BARK.
25267. Remijia pedunculata. Tree 6 m. tall. 8 cm. D.B.H. BARK.
25268. Malvaceae. "Abrago" Common weed in pastures and along pathways, the fruits commonly sticking to animals and to clothes. Flowers very pale pink.
25269. Bidens. "Cadillo" Weed in garden.
25270. Cyperus. "Tote" Weed in garden.
25271. Paspalum. "Grama blanca" Common along pathways.
25272. Cyperus. Weed in garden.
~~25273. Cyperus. Weed in garden.~~
25273. Chlorideae. Common in pastures, moist ground, etc.
25274. Erechtites. Weed in garden.
25275. Erechtites. Weed in garden.
25276. Cyperus. Weed in garden.

May 24. Wet woods along Rio Quirata, near Mirasol, E. of Jordan.

25277. Ipecacuanha?
25278. Fungus. On rotting wood.
25279. Xylaria. Rotting wood.
25280. Clavaria? Rotting wood and leaves on the ground.

May 25. About 1 km. E. of Jordan on path to Mira Buenos.

25281. Shrub.

25282-23308

SANTANDER DEPARTMENT

May 26. San Jeronimo, ½ km. N.E. of Jordan, 50 km. N. of Velez.
25282. Cinchona sp. Tree 5 m. tall, 5 cm. D.B.H. BARK.
25283. Cinchona sp. Wooded ridge.
25284. Cinchona sp. One sprout, in sections.
25285. Cinchona sp. Mass collections.
25286. Ladenbergia? (Same as #25254) BARK.
25287. Ladenbergia? Young twigs.

May 27. Jordan, 50 km. N. of Velez.
25288. Rubiaceae? Tree 20 cm. D.B.H.; calyx green; corolla white. Dense woods, steep canyon W. of road. BARK.
25289. Rubiaceae? Small tree; corolla yellow. Steep canyon W. of road.
25290. Heteranthera. Flowers white. Roadside ditch.
25291. Passiflora. Sepals light green with one border white; petals white; outer corona purple and yellow, inner light green; filaments deep purple; anthers yellow outside, green and pueple-margined inside. Hanging down rock cliff.
25292. Basidiolichen? Rock cliff, road cut.
25293. Eleocharis. Tendency toward vivipery, and with bract like Scirpus debilis. Roadside ditch.

BOYACA DEPARTMENT

June 6. 5. km. W.S.W. of Arcabuco, valley Rio Pomera
25294. Orthosanthus. Cliff. Flowe s blue.
25295. Lichen. Rock cliff.
25296. Lichen. Rock cliff.
25297. Fragaria. Roadside weed.
25298. Orchidaceae. Petals dull-yellow-brown, with dark red veins; column dark red. Lightly wooded rock cliff.

CUNDINAMARCA DEPARTMENT

June 6. N.E. of Gachancipa
25299. Raphanus. Petals purple, dark-veined. Very abundant and coloring acres of field.
25300. Polygonum. Weed in field.

SANTANDER DEPARTMENT

June 7. Barbosa
25301. Fragaria. Petals yellow. In patio, Gales Hotel.
25302. Brassica. Roadside, road to Velez.

June 8. 12 km. N. of Velez.
25303. Cardamine. Wet talus.

June 9. La Flores, 14 km. N. of Landazuri, 85 km. N. of Velez. 2000 ft.
25304. Digitaria. Roadway.
25305. Euphorbia. Roadside.
25306. Gramineae. Driveway.
25307. Portulaca. Driveway.
23308. Jasmine.

25309-25342

SANTANDER DEPARTMENT

June 9. Steep wooded hillside, La Flores, 2050 ft., 85 km. N. ofVelez.
25309. Rubiaceae. BARK turns red inside
25310. Rubiaceae. BARK turns red slightly or not at all.
25311. Rubiaceae. (no herbarium specimen) BARK turns pale peach-color, Grahe negative.
25312. Rubiaceae. (no herbarium specimen) BARK remains nearly white, Grahe negative.
25313. Rubiaceae. Mass collection.

June 10. Cimitarra, 100 km. N. of Velez
25314. Remijia pedunculata. Tree 20 cm. D.B.H., stripped 1.5 m. 6 mo. ago. Flowers white. Wooded ridge, alt. 1350 ft. BARK 2.2 TCA.
25315. Remijia pedunculata. Mass collection. About ½ km. of path along wooded ridge, alt. 1350 ft.
25316. Remijia pedunculata. Tree 15 cm. D.B.H., stripped 1 m. 6 mo. ago. BARK 2.2 TCA. 1350 ft.
25317. Ladenbergia? Trunk 40 cm. D.B,H. BARK Grahe negative. 1350 ft.
25318. Remijia pedunculata. 5 cm. D.B.H. BARK Grahe negative. 1350 ft.
25319 Remijia or Ladenbergia? Seedling. 1350 ft.
25320. Cyperus. Cleared hillside with Molasses Grass. Alt. 1300 ft.
25321. Cyperus. Cleared hillside with Molasses Grass. Alt. 1300 ft.
25322. Herb with blue flowers. Bank of stream in pasture. 1300 ft.
25323. Same sp., flowers white. " " " " " " "

June 11. Forest S.W. of Cimitarra, in headwaters of Quebrada San Juan, 100 km. N. of Velez
25324. Remijia sp. Tree 12 cm. D.B.H.; flowers yellowish white; bark bright yellow within. 3 km. S.W. of Cimitarra. BARK 1500 ft.
25325. Remijia sp. Mass collection.
25326. Remijia sp. Seedlings 2 m. tall.
25327. Remijia sp. Tree 20 cm. D.B.H. BARK.
25328. "Bejuco de Gras" Long stout vine, source of drinking water. Forest about 4 km. S.W. of Cimitarra. Alt. 1650 ft.
25329. Remijia sp. Tree 12 cm. D.B.H. Forest about 4.5 km. S.W. of Cimitarra. Alt 1650 ft. BARK NMTT.
25331. Remijis sp. Mass collection.
25332. Remijia sp. Collected near Cimitarra by Richardo Carbagal. BARK 2.1 TCA. Dr. Bellis writes: "This sample was highly resinous, very dark colored and too difficult to clear the ppts. well enough to give wholly satisfactory results."

June 12. La Quitiana, near Quebrada San Juan, about 90 km. N. of Velez.
25333. Remijia sp. Tree 15 cm. D.B.H.; flowers white. Wooded ridge, 1400 ft. STIPULES, BARK Grahe negative.
25334. Remijia sp. Tree 12 cm. D.B.H. STIPYLES, BARK Grahe negative.
25335. Remijia sp. Mass collection.
25336. Remijia pedunculata. Tree 12 cm. D.B.H., stripped for about 1 m. STIPULES, BARK 2.0 TCA, less than 1.8 QS. Alt 1650 ft.
25337. Remijia pedunculata. Tree 10 cm. D.B.H. STIPULES, BARK 1.4 TCA.
25338. Remijia pedunculata. Trunk stripped 40 ck. STIPULES, BARK 1.5 TCA.
25339. Remijia pedunculata. Trunk 8 cm. D.B.H. STIPULES, BARK
25340. Remijia pedunculata. Trunk 12 cm. D.B.H., stripped 1 m. STIPULES, BARK.
25341. Remijia pedunculata. Trunk 12 cm. D.B.H. STIPULES, BARK 1.9 TCA.
25342. Remijia pedunculata. Trunk 15 cm. D.B.H., stripped 1.5 m. STIPULES, BARK 1.8 TCA, less than 1.7 QS.
~~25343. Remijia~~

25343-25376

SANTANDER DEPARTMENT

25343. Remijia pedunculata. Mass collection. Alt. 1650 ft.
25344. Ladenbergia? Trunk 30 cm. D.B.H.; flowers white. Alt. 1650 ft. BARK Grahe Negative.
25345. Remijia sp. 1400 ft., with # 25333-35. STIPULES.
25346. Phytolacca. Mass collection. Pastured clearing, 1350 ft.

June 14. La Union, about 110 km. N. of Velez. Wooded ridge.
25347. Remijia sp. Trunk 10 cm. D.B.H. STIPULES, BARK Grahe negative.
25348. Remijia sp, Trunk 8 cm. D.B.H. STIPULES, BARK Grahe negative.
25349. Remijia sp. Trunk 12 cm. D.B.H. STIPULES.
25350. Remijia sp. Trunk 6 cm. D.B.H. STIPULES.
25351. Remijia sp. Mass collection.
25352. Remijia.sp. Corollas on the ground; white, mostly 5-parted, a few 4-parted.
25353. Andropogon. Cleared spot on ridge.

June 15. Puerto Olaya. Alt. about 400 ft.
25354. Salvinia. Edge of stream.
25355. Gramineae. Stems rooting at nodes, trailing in water.
25256. Pteridophyta. Floating on surface of water.
25357. Cyperaceae. Wet swale.
25358. Echinochloa. In shallow mud on a bridge.
25359. Cyperaceae. Wet swale.
25360. Azolla. Floating in quiet water.
25361. Salvinia. Edge of stream.
25362. Lemna. Edge of stream.
25363. Spirodala. Floating in quiet water with Azolla.
25364. Gramineae. 2 m. tall. Roadside ditches and along Rio Magdalena.
25365. Ludwigia? Petals 5, yellow. Roadside ditch.
25366. Leguminose. Shrub. Roadside.
25367. Canna. Flower scarlet. Roadside ditch.
25368. Euphorbia. Roadside.
25369. Leguminosae. Leaves sensitive. Roadside.
25370. Commelina. Roadside.

June 16. Puerto Olaya. Alt. about 400 ft.
25371. Utricularia. Quiet pool.
25372. Shrub said to poison bulls. Finca of Amilio Piedrahata, 6 k. E. of Puerto Olaya.
25373. Cyperaceae. Shallow water of swale. about 7 km. E. of Puerto Olaya.

June 17. Finca of Amilio Londoño, 6 km. W. of Puerto Aquileo
Alt. about 450 ft.
25374. Gramineae. One patch in recently cleared and burned land; the fine masses of panicles look like white mist in the sunshine.
25375. Phytolacca. Mass collection. Recently cleared and burned land.
25376. "Saiba". Tree, sometimes very large, with spiny trunk; milky juice said to be used for fish poison

25377-25408

SANTANDER DEPARTMENT

June 18. 6 Km. W. of Puerto Aquilio.
25377. Mimosa. Roadside.

June 18. Agua Fria, near Cimitarra, 100 km. N. of Velez.
25378. Heliconia. Leaf blades 1.5 m. long, petioles a little longer; inflorescence pendulous; bracts yellow and red. Low ground along Rio Guayabita.

June 19. About 90 km. N. of Velez.
25379. Lemna. Small pool in stream, about 10 km. S.E. of Cimitarra.

June 19. Densely wooded ridge, La Venezia, near Jordan, 50 km. N. of Velez. Alt. 2800 ft.
25380. Remijia pedunculata. Tree 10 cm. D.B.H. STIPULES, BARK
25381. Remijia pedunculata. Tree 10 cm. D.B.H. STIPULES, BARK.
25382. Remijia pedunculata. Tree 10 cm. D.B.H. STIPULES, BARK
25383. Remijia pedunculata. Tree 10 cm. D.B.H. STIPULES, BARK.

June 20. Steep wooded hillside, La Florez, 85 km. N. of Velez. 3050 ft.
25384. Rubiaceae. Tree 10 cm. D.B.H. STIPULES, BARK Grahe negative
25385. Rubiaceae. Plants 2 m. tall.
25386. Tree 8 cm. D.B.H. STIPULES, BARK Grahe negative. Rubiaceae.
25387. Rubiaceae. STIPULES, BARK Grahe negative.
25388. Ipecacuanha? Plants rare, growing singly.
25389. Ipecacuanha? Mature berries blue.
25390. ? Berries nine red; petals white.
25391. Rubiaceae. Tree 7 cm. D.B.H. STIPULES, BARK.
25392. Rubiaceae. Tree 5 cm. D.B.H.? STIPULES, BARK Grahe negative.

June 21. "Nueva York", finca in the hills between Landazuri and La Florez, about 75 km. N. of Velez. Alt. 3650 ft.
25394. Remijia pedunculata. Tree 15 cm. D.B.H. STIPULES, BARK
25395. Remijia pedunculata. Trunk 8 cm. D.B.H. STIPULES, BARK 1.2 TCA
25396. Remijia pedunculata. Tree 8 c.. D.B.H. STIPULES, BARK 0.7 TCA
25397. Remijia pedunculata. Tree 8 c,. D.B.H. STIPULES, BARK 1.0 TCA
25398. Remijia pedunculata. Fruits from tree previously felled.
25399. Remijia pedunculata. Mass collection.
25400. Remijia pedunculata. Fruits from tree previously felled.
25401. Remijia pedunculata. Tree 5 cm. D.B.H. STIPULES, BARK 1.0 TCA
25402. Canna. "Sugo" Cultivated.
25403. Cinchona Henleana. Flowers with odor of jasmine.

June 22. Cimitarra, 100 km. N. of Velez.
25404. Ludwigia. Flowers yellow. Wet margin of small stream.
25405. Creeping vine. Flowers yellow.

June 27. Landazuri, 70 km. N. of Velez.
25406. Gramineae. On wet cliff.
25407. Cephaelis. Dense woods, "Alta Mira", 15 km. N. of Landazuri.

June 28. Landazuri, 70 km. N. of Velez.
25408. Phalloid. On rotton log, "Mira Alta", 15 km. N. of Landazuri.

25409-25436

SANTANDER DEPARTMENT

June 29. Cerro de Armas region, about 90 km. N. of Velez.
25409. Root parasite? Corolla purple, 6-parted, 3 lobes larger; young fruit white; stem and scale leaves dark purple. Deep forest, Cerro la Isla. Alt. 3000 ft.
25410. Melastomaceae. Pubescence purple; inflated leaf-bases with ants; young fruit orange. Deep forest, Cerro la Isla. Alt 3000 ft.
25411. Rubiaceae. Deep forest, Cerro la Isla. Alt 3000 ft.
25412. Cinchona Henleana. Near Cerro de Paramo, Alt. 3000 ft.
Collecter Jaime Llobell E.

June 30. Cerro de Paramo, Cerro de Armas region, 90 km. N. of Velez
25413. Rubiaceae. Flower white, slightly yellowish outside, with odor of Jasmine. Exposed peak, 6200 ft. BARK, Grahe negative.
25414. Rubiaceae. Trunk 8 cm. D.B.H. BARK Grahe negative
25415. Orchidaceae. Forming dense thickets 2 m. high. Alt. 6000 ft.
25416. Bifaria? Shrub paramo, Alt. 6200 ft.
25417. ? Shrub paramo, alt. 6200 ft. Bracts & flowers deep pink.
25418. Musci. Draping tree trunks for 2 m. Alt. 6200 ft.
25419. Musci. Draping tree trunks for 2 m. Alt. 6200 ft.
25420. Pteridophyta. On tree trunks. Alt. 6200 ft.
25421. Lycopodium. Stem 2 m. long. Alt. 6000 ft.
25422. Cinchona sp. Wooded ridge at 5300 ft. (occurs to 6000 ft).
25423. Cinchona sp. Mass collection. No leaves with red veins.
25424. Root parasite? Lower stem purplish, rest of plant white. Deep woods, 6000 ft.
25425. Goodyera? Deep woods, 5500 ft. Leaves reddish on smaller plant.

July 1. Cerro de Armas region, about 90 km. N. of Velez.
25426. Araceae. In clearing, Cerro la Isla, 3000 ft. Petiole 1.5 m. long, rolled at base, green and marked with whitish; blade 2-parted; corm 1 cm. in diameter, said to be ground and used for snake bite.
25427. Rubiaceae. Tree 12 cm. D.B.H.; buds dee pink much like Cinchona pubescens. Near headwaters of Quebrada de Armas, about 4500 ft.
25428. Rubiaceae. Flowers white. Deep forest near headwaters of Quebrada de Armas.
25429. "Yerba Crista" Each leaf with 1 or 2 blood-red spots; flowers yellow. Deep forest, Cerro la Isla, 3000 ft.
25430. Commelinaceae. Plants 2 m. tall; flowers white, deep pink at base. Rocky stream-bed in dense woods, Cerro la Isla, 3500 ft.
25431. ? Vine said to have been used by the Indians for poisoning arrows; also sold in the market at Velez, the guides know not why.

July 2. Cerro de Paramo, Cerro de Armas region, 90 km. N. of Velez
25432. Gentianaceae? Flower scarlet. Shrub paramo, 6200 ft.
25433. Bromeliaceae. Arboreal, 6200 ft.
25434. Bromeliaceae. Flowers scarlet. Arboreal, 6200 ft.
25435. Neurolepis? Selected small specimens; some are 1.5 m. long. Roots coated with clear colorless jelly. Called "Langua jira? and said to be characteristic of tierra fria and often to grow with quina.

July 3. Landazure, 70 km. N. of Velez.
25436. Melastomaceae. Inflated leaf-bases inhabited by ants. Woods about 10 km. N. of Landazuri.

25437-25463

SANTANDER DEPARTMENT

July 4. East side of Rio Guayavita, on wooded hillside 10 km. S. of Cimitara, about 90 km. from Velez. Guided by Luis Rubiano.

25437. "Ipecacuanha morada" About 20 plants in area of 2 m. in diameter. Rootstocks 12-15 mm. thick; berries blue. ROOT SAMPLE.
25438. "Ipecacuanha amarilla" Same locality. Berries said to be yellow.
25439. "Ipecacuanha amarilla" Same locality, low ground along river. Five plants in area of 2 m. ROOT SAMPLE.
25440. "Ipecacuanha amarilla" 5 plants seen. ROOT SAMPLE.

BOYACA DEPARTMENT

July 6. Paramo between Tunja and Arcabuco.

25441. Phytolacca. Roadside.
25442. Polytrichum.
25443. Oxalis. Flowers yellow.
25444. Oxalis. Flowers yellow.
25445. Viola. Calyx purple; corolla white.
25446. Compositae.
25447. ?
25448. Vicia?
25449. Cladonia.

July 6. Paramo south of Tunja, on road to Bogota.

25450. Dicronema?
25451. Hypericum. Flowers yellow.

CUNDINAMARCA DEPARTMENT

July 14. Roadside, 23 km. N. of Bogota.

25454. Oxalis. Leaves fleshy; flowers yellow.
25455. Oxalis. Flowers yellow.
25456. Oxalis. Stems creeping; flowers yellow.
25457. Oxalis. Stems creeping; flowers yellow.
25458. Spergula.
25459. Prunus. Tree 20 cm. D.B.H.
25460. Prunella/
25461. Prunella.
25462. Galinsoga. Rays white above, purple beneath.
25463. Achillaea. Rays purple. Pasture near road.

SANTANDER DEPARTMENT

July 16. Wooded ridge, 1350 ft., Cimitarra, 100 km. N. of Velez
25466. Melastomaceae. Flowers white. Edge of woods.
25467. Remijia pedunculata. Tree 12 cm. D.B.H. Bark & twigs pickled for morphological study; STIPULES, BARK 2.3 TCA.
~~25468. Remijia sp.~~

July 16. Forest 3 km. S.W. of Cimitarra, 1600 ft., 100 km. N. of Velez
25468. Remijia sp. Tree 14 cm. D.B.H. Bark & twigs pickled for morphological study; STIPULES, BARK.
25469. Remijia sp. STIPULES.

July 17. Wooded ridge. 1350 ft., Cimitarra, 100 km. N. of Velez
25470. Remijia pedunculata. One of trees cut as #25314-18. STIPULES only.
25471. Remijia pedunculata. One of trees cut as # 25314-18. STIPULES only
25472. Remijia pedunculata. One of trees cut as #25413-17. STIPULES only
25473. Remijia pedunculata. Bark & twigs pickled for morphological study; STIPULES.
25474. Remijia pedunculata? Tree 2 m. tall., 4 cm. D.B.H., with many large-leaves sprouts. STIPULES.

July 17. Wooded hillside near Quebrada San Juan, 17 km. N. of Landazuri, about 90 km. N. of Velez. (Same as Fosberg & Fassett #21830-42).
25475. Remijia pedunculata. Bark & twigs pickled for morphological study; STIPULES.
25476. Remijia pedunculata. STIPULES.
25477. Rubiaceae. Like #25384-87.
25478. Remijia pedunculata. Small plant 2 m. tall.

July 18. Jordan, 50 km. N. of Velez.
25479. Remijia pedunculata. Hilltop called "Jordan." STIPULES; BARK collected with Lieut. Ronzani for his fresh bark extraction.
25480. Cinchona sp. (See #25282) Wooded ridge, San Jeronimo. Bark & twigs pickled for morphological study.
25481. Cinchona Henleana. Along path to La Venezia. Bark & twigs pickled for morphological study.
25482. Remijia pedunculata. Tree 10 cm. D.B.H. Hilltop called "Jordan" STIPULES; BARK collected with Lieut. Ronzani for his fresh bark extraction.
25483. Remijia pedunculata. Tree 25 cm. D.B.H. Hilltop called "Jordan." STIPULES; BARK; ~~illegible~~ bark & twigs pickled for morphological study.
25484. Remijia pedunculata. Small tree 4 cm. D,B,H. STIPULES.
25485. Remijia pedunculata. Tree about 10 cm. D.B.H.? STIPULES.

July 19. Roadsides 17-18 km. N. of Velez.
25486. Phytolacca. Mass collection.

July 20. Olba.
25487. Cyneriu~~m~~

25488-25527

SANTANDER DEPARTMENT

July 21. Roadside 12 km. N. of Socorro. Alt. 5400 ft.
25488. Rubiaceae. Tree 6 m. tall; flower sith odor of jasmine; corolla white turning cream-yellow. Bark & twigs pickled for morphological study.

July 22. City streets, Zapatoca. Alt. 5650 ft.
25489. Oxalis. Flowers yellow.
25490. Ambrosia. Foliage fragrant.
25491. Malva. Flowers light blue.
25492. Panicum.
25493. Setaria.
25494. Sporobolus?
25495. Gramineae. Spikelets purple-green.
25496. Gramineae.
25497. Digitaria.
25498. Lepidium.

July 22. Dry hillside ½ km. S. of Zapatoca. Alt. 5650 ft.
25499. Gramineae.
25500. Chlorideae.
25501. Galium. Flowers lemon-yellow.
25502. Chlorideae?
25503. Bidens.
25504. Setaria. Setae and styles red.
25505. Sporobolus? Spikelets reddish.
25506. Lichen. Yellow-orange.
25507., Eryngium. Flowers white.
25508. Cenchrus.

July 23. Mountain west of Zapatoca.
25509. Onoclea? Among dry rocks. Alt. 5000 ft.
25510. Hieracium. Dry pasture. Alt. about 7000 ft.
25511. Lepidium. Weed in finca on W. side of mountain. Alt. 8000 ft.
25512. Polygonum. "Barbasco" Weed in finca. Alt. 8000 ft.
25513. Cinchona pubescens. Tree 1 m. D.B.H., broken and with only one remaining branch 0.5 m. in diameter. Woods on W. side of mountain. Bark & twigs pickled for morphological study; BARK. Alt. 8400 ft.
25514. Andropogon. Dry pastured mountainside. Alt. 8400 ft.
25515. Gramineae. Tufted. Dry pastured mountainside. About 7000 ft.
25516. Orchidaceae. Flowers rose-color. 8200 ft., on E. side of mountain.
25517. Orchidaceae. Flowers rose-color. 8400 ft., on E. side of mountain.
25518. Ophioglossum. In Polytrichum mat on a flat rock. Green portion fleshy. W. side of Mountain, 8300 ft.
25519. Cruciferae. Flowers purple. On moist banks, 8300 ft
25520. Galinsoga. Rays white; tubes yellow. Grassy hillside, 8300 ft.
25521. Galinsoga. Rays and tubes yellow. Grassy hillside, 8300 ft.
25522. Caryophyllaceae. Moist bank, 8300 ft.
25523. Caryophyllaceae. Moist bank, 8300 ft.
25524. Caryophyllaceae. Moist bank, 8300 ft.
25525. Caryophyllaceae. Moist bank, 8300 ft.
25526. Caryophyllaceae. Moist bank, 8300 ft.
25527. Commelina. Flowers white. Grassy hillside, 8300 ft.

25528-25557

SANTANDER DEPARTMENT

July 24. Zapatoca

25528. Labiatae. Said to be haemostatic. Thickets in pasture S. of town.
25529. Dry rocky hillside W. of town. Alt. 5700 ft.
25530. Dry rocky hillside W. of town. Alt. 5700 ft.

July 25. West of S. Vicente de Chucuri.

25532. Bidens. Roadside, Nuevo Mundo, valley of Quebrada la Llana.
25533. Cyperaceae. Cement foundation under bridge, Q. la Llana.
25534. Gramineae. Wooded bank, roadside. Nuevo Mundo, near Rio Oponcito.
25535. Leguminosae. Moist brnk near Rio Oponcito.
25536. Mimosa. Flowers white. Roadside weed, Nuevo Mundo.
25537. Mimosa. Flowers pink. Roadside weed, Nuevo Mundo.

July 26. Junction of roads to Bucaramanga and to Zapatoca, 3 km. E. of S. Vicente de Chucuri. Alt. 2800 ft.

25538. Apocynum. Flowers orange.
25539. Leguminosae.
25540. Mimosa. Flowers pink.

July 28. Chima.

25541. Rubiaceae. Tree in forest along Quebrada Chima, 10 km. W. of Town.
25542. Rubiaceae. Tree in forest along Quebrada Chima, 10 km. W. of town.

July 29. Mountains west of Chima, valley of Quebrada Chima.

25543. Cinchona Henleana. Forested hillside along Q. Chima. 4200 ft.
25544. Habenaria. Grassy hillside. 4800 ft.
25545. Cinchona Henleana. Forested hillside. 4700 ft.
25546. Tree called "Quino" and said to be used for paludismo. Alt. about 4600 ft.

July 30. Headwaters of Q. Chima, in mountains west of Chima.

25547. Cinchona officinalis. Tree 15 cm. D.B.H.; flowers dark red; stipules green. Dense forest at 7500 ft. Bark & twigs pickled for morphological study; BARK.
25548. Cinchona officinalis. Tree 15 cm. D.B.H. BARK.
25549. Pteridophyta. On rock slide in stream, under swift water after a rain. 7700 ft.
25550. Phytolacca. Clearing at 8100 ft; only 2 plants seen.
25551. Physalis. Corolla yellow with black markings. Clearing at 8100 ft.
25552. Cinchona sp. Midrib light red above. Deep wooded canyon at 7600 ft. BARK.
25553. Cinchona sp. Midrib not red. Deep wooded canyon at 7600 ft. BARK.
25554. Quercus. Single tree in clearing, 30 cm. D.B.H. 5700 ft.
25555. Rynchospora. Grassy mountainside, 7600 ft.
25556. Gramineae. Culms tufted; spikelets brown. Grassy mountainside at 7600 ft.
25557. Eriocaulaceae. Grassy mountainside at 7600 ft.

25558-25581

SANTANDER DEPARTMENT

July 31. Headwaters of Q. Chima, in mountains west of Chima
25558. Ladenbergia magnifolia (fide Posberg). Leaves very pale red or green in veins; capsule splitting from below; flowers white. Edge of clearing at 5300 ft. Bark & twigs pickled for morphological study; BARK.
25559. Leonurus. Flowers purple. Land pastured by hogs, about 5000 ft.
25560. Habenaria. Flowers green. Grasslands at 6500 ft.

August 1. San Antonio, in dreinage of Q. Chima west of Chima.
25561. Ladenbergia. Tree 12 cm. D.B.H. Wet woods at 7800 ft. Bark and twigs pickled for morphological study.
25562. Habenaria. Flowers green with whitish spur. Grassland, 7000 ft.
25563. Ladenbergia. Forest at 7200 ft.
25564. Orchidaceae. Flower yellow with red-brown stripes. Forested ridge, 8000 ft.
25565. Orchidaceae. Flowers yellow; lip with a scarlet spot. Forested ridge, 8000 ft.
25566. Orchidaceae. Flowers crimson. Forested ridge, 8000 ft.
25567. Orchidaceae. Stem with crimson glutinous spots; flowers lemon-yellow, the column spotted with crimson. Forested ridge, 8000 ft.
25568. Orchidaceae. Flowers yellow; lip with a crimson spot. Forested ridge, 8000 ft.
25569. Gramineae. Culms 4 m. long; only a few dwarfed inflorescences not over-riow. Shrubby sub-paramo, 8300 ft.
25570. Basidiolichen? Blue-green color. On bases of rotting treestrunks at 8200 ft.
25571. Basidiolichen? Blue-green color. On bases of rotting tree-trunks at 8800 ft.
25572. Basidiolichen? Blue-green color. On bases of rotting tree-trunks at 8200 ft.
25573. Cladonia. Among dwarfed trees on ridge at 8200 ft.
25574. Pteridophyte. On trunks of dwarfed trees on ridge at 8200 ft.
25575. Chusquea. In dense thicket at 7000 ft.

& Pan de Azucar

August 2. Near San Antonio, drainage of Q. Chima, mountains N. of Chima.
25577. Ladenbergia magnifolia. Veins with little or no red pigment; in bud but flowers apparently white. Edge of forest at 6800 ft. Bark & twigs pickled for morphological work; BARK
25578. Cinchona pubescens. Leaves with red veins; flowers red. Edge of forest at 6800 ft. Bark & twigs pickled for morphological study; BARK.
25579. Manihot. Cultivated on north slope of San Antonio, about 6800 ft.
25580. Anaphalis? In cultivated land, north slope of San Antonio, about 6800 ft.
25581. Habenaria. ~~Habenaria.~~ Corolla yellowish-white. South slope of Pan de Azucar, 6400 ft.

25582-25606

SANTANDER DEPARTMENT

August 3. Mountains west of Chima, valley of Quebrada Chima.
25582. Corolla nearly white. Grassy hillside, 4800 ft. Habenaria.
25583. Phytolacca. Only 2 plants, along trail. About 4500 ft.

August 4. Weeds in patio, Cinchona Mission office, Bucaramanga
25584. Bidens
25585. Eragrostis. Between paving blockd
25586. Euphorbia. Between paving blocks
25587. Euphorbia

August 11. Path to El Carmen, 20 km. W. of San Vicente de Chucuri
25588. Jussiaea? Flowers yellow; roots spreading and with long white outgrowths whose tips float on the surface. Shallow water, Quebrada de los Indios.
25589. Rubiaceae. Woods along Rio oponcito. Alt. 1000 ft.
25590. Phytolacca. Along path near Rio Oponcito.

August 12. El Carmen region, SW. of S. Vicente de Chucuri.
25591. Rubiaceae. Small tree; flowers white, fragrant. Alt. 2000 ft. Bark & twigs pickled for morphological study.
25592. Remijia pedunculata. Tree 14 cm. D.B.H. Cerro de Quinol. Alt. 2600 ft. STIPULES, BARK 2.0 TCA, 0 QS.
25593. Remijia pedunculata. Tree 8 cm. D.B.H. Cerro de Quinol, Alt. 2600 ft. STIPULES, BARK 2.7 TCA, 3.2 QS.
25594. Remijia pedunculata. Tree 15 cm. D.B.H. STIPULES, BARK 2.4.TCA, 2.9 QS.
25595. Phytolacca. Along path.

August 13. El Carmen region, SW. of S. Vicente er Chucuri
25596. Ladenbergia magnifolia. Tree 30 cm. D.B.H.; flowers white; petioles and veins brown. BARK.

August 18. Sidewalk at wall of houses. and street, Oiba.
25597. Galinsoga
25598. Galinsoga

BOYACA DEPARTMENT

August 20. Roadside noth of Moniquira. Alt. 7200 ft.
25599. Ranunculus.

August 20. El Cidro, near Q. el Pato, valley of Rio Pomera. 11 km. SE. of Moniquira
25600. Agrostis. Rock lefges in stream-bed.
25601. Panicum. Rock ledges in stream-bed.
25602. Paspalum. Rock ledges in stream-bed.
25603. Paspalum. Rock ledges in stream-bed.
25604. Carhophyllaceae. Hanging over rock ledge.
26605. Hypericum. Roadside.
25606. Erechtites. Folwers rose-color. Roadside.

25607-25648

BOYACA DEPARTMENT

25607. Orchidaceae. Flowers pink. Rock cliff of road-cut.
25608. Orchidaceae. Flowers nearly white. Rock cliff of road-cut.
25609. Orchidaceae. Flowers deep pink. Rock cliff of road-cut.
25610. Orchidaceae. Flowers pink. Rock cliff of road-cut.
25611. Gramineae. Forming stiff sod.
25612. Trifolium. Roadside.
25613. Leersia? Shallow water of roadside ditch.
25614. Hieracium. Path-side.
25632. Juncus. Grassy place.
25615. Lycopodium. Rock cliff of road-cut.
25616. Orchidaceae. Some flowers shite, others yellow, in same inflorescence. Rock cliff of roadside.
25617. Cyperus. Roadside ditch.
25618. Commelina. Flowers blue. Roadside.
24619. Tillaea. Muddy roadside ditch.
25620. Medicago. Roadside.
25621. Oxalis. Flowers yellow. Rocky road-cut.
25622. Sisyrinchium. Flowers blue. Roadside.
25623. Cyperus. Roadside ditch.

August 20. In saturated Sphagnum overlying sand, La Cumbre, drainage of RioPomera, 14 km. NW. of Arcabuco. 8000 ft.

25624. Utricularia. Flowers purple.
25625. Utricularia. Flowers yellow.
25626. Lycopodium
25627. Rynchospora
25628. Xyris. Flowers white
25629. Eriocaulaceae. Large compact clump mixed with Sphagnum.
25630. Eleocharis
25631. Xyris. Flowers yellow.
25632. (See after #25614)

August 20. Canyon of Rio Pomera, 11 km. NW. of Arcabuco. 8600 ft.

25633. Eriocaulaceae. Wet roadside at foot of cliff
25634. Sisyrinchium. Flowers yellow. Grassy roadside
25635. Orchidaceae. Sepals red at base and on tails, yellow in middle; petals yellow. Mossy cliffs.
25636. Utricularia. Upper sepal metalic purple, lower sepal greenish-yellow; petals pastel purple, throat yellow, spur white. In Sphagnum on perpendicular road-cut.

August 20. North end of canyon of Rio Pomera, near top of cliff, 13 km. NW. of Arcanuco. 8200 ft.

25637. Lycopodium. Trailing over cliff.
25638. Lycopodium, Trailing over cliff.
25639. Eleocharis. Roadside ditch.
25640. Sisyrinchium. Flowers yellow. Grassy roadside.
25641. Juncus. Moist bank.
25642. Hypericum. Roadside.
25643. Juncus. Roadside.
86544. Eleocharis. Shallow water of roadside ditch.
25645. Sisyrinchium. Roadside
25646. Lycopodium. Roak cut.
25647. Juncus. Roadside ditch.
25648. Juncus. Roadside ditch.

25649-25679

BOYACA DEPARTMENT

August 20. 6 km. NW. of Arcabuco, on savanah.
25649. Lycopodium. Hanging over bank, road-cut.

August 20. Canyon of Rio Pomara, 10 km. NW. of Arcabuco
25650. Cinchona pubescens.

CUNDINAMARCA DEPARTMENT

August 27. Vereda de Rozo, Sabana de Bogota, 4 km. S. of Cota, 30 km. NW. of Bogota
25651. Rumex. eed in cultivated land
25652. Rumex. Fence-row.
25653. Artemisia? Plant fragrant. Weed in cultivated land.
25654. Spergula. Weed in corn field.
25655. Lepidium. Weed in corn field
25656. Polygonaceae. Stem and old leaves red;,flowers rose; green leaves with a red blotch. Weed in corn field.
25657. Polygonum. Flowers rose; leaves with a red blotch. Weed in corn field.
25658. Polygonaceae. Same as #25656, but dark red. Weed in corn field
25659. Oenothera. Leeves green, turning dark red in age; petals yellowish green, turning orange. Weed in corn field.
25660. Liliaceae. Sepals orange-yellow with 3 green lined; petals orange-yellow with 3 very slender green lines. Weed in corn field.
25661. Leontodon. Flowers bright yellow. Weed in corn field.
25662. Lychnis? Flowers light pink of white; inflorescence with short-stalked glands and long glistning hairs. Weed in corn field.
25663. Viola arvensis. Flowers cream-yellow. Weed in corn field and fence-row.
25664. Primulaceae? Corolla deep blue, dark red at base; filaments dark red; anthers yellow. Among grass, fence-row.
25665. Oenothera, same as 25659. Among grass, fence-row.
25666. Primulaceae?, same as #25664. Filaments white at base, purple above. Weed in corn field.
25667. Oxalis. Flowers yellow. Moist edge of earth dam.
25668. Polygonum. Stem, bracts, ocrease, and rachis of inflorescence dark red; flowers green at base and white toward tip. Moist spot under tree in pasture.
25669. Prunus. Tree in farm-yard.
25670. Jussiaea? Stems prostrate, rooting at nodes; petals yellow. Wet places.
25671. Veronica. Flowers white. Revently flooded irrigation ditch.
25672. Gnaphalium? Slightly fragrant. Roadside.
25673. Gnaphalium? Slightly fragrant. Roadside.
25674. Compositae. Weed in corn fields.
25675. Alnus. Fence-row near ir igation ditch.

August 27. Mule patch in Eucalyptus grove. foot of Cerro de Guadalupe, above Calle 4, Bogota
25676. Plantago
25677. Ranunculus. Petals pale greenish yellow with yellow scale. Making a close mat in a wet place.
25678. Ulex. Flowers yellow.
25679. Veronica.

25680-25712

CUNDINAMARCA DEPARTMENT

August 26. Bought in flower store in Bogota.
25680. Bromeliaceae? "Langostos" Flower with 2 inner bracts; petianth of 3 lance-linear magenta-rose separatesegments; stamens 6, long, hypogenous; anthers linear, basifixed; ovary superior, 3-celled, with numerous axial ovuled; stigmas capitate on long style.

SANTANDER DEPARTMENT

September 5. Headwaters of q. Chiriviti, W. of Galan
25681. Ladenbergia. Small tree in thicket left on burned hillside. 8300 ft.
25682. Vibla. Flowers blue. Burned and cleared hillside, 8200 ft.
25683. Liliaceae. Flowers pale lilac. Burned and cleared hillside, 8200 ft.
25684. Lycopodium. Burned and cleared hil side, 8200 ft.
25685. Liliaceae, same as #25683. Flowers blue. Burned and cleared hillside. 8100 ft.
25686. Liliaceae, same as #25683. Flowers pale lilac. Burned and cleared hillsied. 8100 ft.
25687. Cyperaceae. Burned and cleared hillside, 7800 ft.
25688. Cladonia. Burned and cleared hillside, about 8050 ft.
25689. Cladonia. Burned and cleared hillside, about 8050 ft.
25690. Cladonia. Burned and cleared hillside, about 8050 ft.
25691. Cladonia. Burned and cleared hillside, about 8050 ft.
25692. Lichen. Thicket, 8300 ft.
25693. Ladenbergia. Flowers white. Dense forest. 8300 ft.
25694. Ludenbergia? Flowers (seen on another tree which could not be reached because of density of vegetation) white. Shrubby paramo near summit of ridge. About 9500 ft.
25695. Compositae. Flowers yellow. Cleared and burned hillside. About 8200 ft.
25696. Rhododendron? (but petals appear separate) Flowers deep pink; shrub 1 m. tall. Burned and cleared hillside. About 8000 ft.
25697. Orchidaceae. Flowers orange or purple-red. Burned and cleared hillside. About 8000 ft.
25698. Hypericum. Shrub less than 1 m. tall; flowers yellow. Burned and cleared hillside. About 8000 ft.
25699. Ericaceae. Shrub about 1 m. tall; flowers white. Shrub-paramo. 9000 ft.
25700. Loranthaceae. Leaves pale green; peduncles and fruit yellowish; flowers red. Shrub-paramo. 9000 ft.
25701. Shrub 1 m. tall; flowers dark blue; fruit red. Shrub-paramo. 9000 ft.
25702. Ericaceae. Shrub 1 m. tall; flowers white. Shrub-paramo. 9000 ft.
25703. Usnea. Shrub-paramo. 9000 ft.
25704. Ericaceae. Shrub 1 m. tall; bracts red. Shrub-paramo. 9000 ft.
25705. Loranthaceae. Same as #25700. Shrub-paramo. 9000 ft.
25706. Shrub 1 m. tall; flowers white. Shrub-paramo. 9000 ft.
25707. Orchidaceae. Epiphytic. Shrub-paramo. 9000 ft,
25708 Orchidaceae? Epiphytic, pendant. Shrub-paramo. 9000 ft.
25709. Cladonia. Shrub-paramo. 9000 ft.
25710. Cladonia. Shrub-paramo. 9000 ft.
25711. Shrub-paramo. 9000 ft.
25712. Bromeliaceae. Bracts red. Shrub-paramo. 9000 ft.

25713-25740

SANTANDER DEPARTMENT

September 6. Finca "Berlin", headwaters of Q. Chiriviti, west of Galan

25713. Cinchona officinalis. Tree about 6 cm. D.B.H. Only tree seen in the region. Edge of forest. 6500 ft.
25714. Caryophyllaceae. In molasses grass pasture. 6700 ft.
25715. Galium. Fruit orange. Molasses grass pasture. 6700 ft.

September 7. Finca "Berlin", headwaters of Q. Chiriviti, west of Galan. Alt. 6500-7000 ft.

25716. Cinchona sp. Densely forested mountain-side.
25717
25718.

September 8. "El Retiro", in Cerro el Guiche, headwaters of Q. Chiriviti, west of Galan.

25719. Rubiaceae. Inflorescence axillary. Steep heavily forested mountain-side. 8400 ft.
25720. Rubiaceae. Inflorescence axillary. Steep heavily forested mountain-side. 8400 ft. BARK
25721. Ericaceae. Bracts red; flowers pink and white. Shrub-paramo at summit. 8900 ft.
25722. Orchidaceae. On mossy trunks of shrubs; flowers solid purple; leeves purplish. Shrub-paramo at summit. 8900 ft.
25723. Orchidaceae. Perianth yellow, lip marked with purple-brown; ovary red ish. Shrub-paramo at summit. 8900 ft.
25724, Orchidaceae. Flowers redpurple; inflorescence terminating a naked stem 1 m. long. Shrub-paramo at summit. 8900 ft.
25725. Lycopodium. Sprawling over shrubs, 8500 ft.
25726. Orchidaceae. On tree-trunks. 8600 ft.
25727. Orchidaceae. On trunks of shrubs; ovary and leaves dark red. Shrub-paramo at summit. 8900 ft.
25728. Pteridophyte. Under shrubs in shrub-paramo. 8900 ft.
25729. Loranthaceae. Ovary brownish green; calyx orange. Shrub-paramo at summit. 8900 ft.
25730. Shrub with red flowers. Shrub-paramo at summit. 8900 ft.
25731. Orchidaceae. Like #25723. Shrub-paramo at summit. 8900 ft.
25732. Orchidaceae. On tree-trunk; flowers lemon-yellow.
25733. Orchidaceae. Flowers yellow with orange center. On tree-trunk, shrub-paramo near summit. 8900 ft.

September 9. Pasture, near fincs "Berlin", headwaters of Q. Chiriviti, west of Galan. Alt. 6800 ft.

a5734. Daucus.
25735. Sonchus. Growing singly, 1 m. tall; flowers yellow.
25736. Gnaphalium.
25737. Chenopodium.
25738. Erechtites. Flowers purple.

September 9. Wooded mountainside, finca "Berlin", headwaters of Q. Chiriviti, west of Galan. Alt. 7200 ft.

25739. Sanicula.
25740. Trailing on mossy log.

25741-25767

SANTANDER DEPARTMENT

September 9. Steep forested mountainside above finca "Berlin" in Cerro de Guiche, headwaters of Q. Chiriviti, west of Galan

25741. Orchidaceae. Flowers very pale greenish-white. Clump on trunk of small tree. 7200 ft.
25742. Lichen. "Lama" Branch of tree. 7300 ft.
25743. Sphagnum. Old leaves red. In a dense clump. 7300 ft.
25744. Orchidaceae? Stems 1 m. long, unbranched; bracts red; flowers pink outside, white within except for red lip. 7500 ft.
25745. Cinchona officinalis. Small tree, 2 cm. D.B.H., the only one seen. 7600 ft.
25746. Usnea. Old plants red. 7700 ft.

September 9. On mossy tree trunks in rain-forest, Cerro de Guiche, above "El Retiro", headwaters of Q. Chiriviti, west of Galan. Alt. 8100-8800 ft.

25747. Orchidaceae. Corolla lobes purple, tails lighter.
25748. Orchidaceae. Flowers green and reddish.
25749. Orchidaceae. Flowers greenish.
25750. Orchidaceae. Flower pale yellowish, lip spotted with red.
25751. Orchidaceae. Flowers pale yellowish with red spots.
25752. Orchidaceae.
25753. Orchidaceae. Flowers pale red.
25754. Orchidaceae.

September 10. Valley of Q. Chiriviti, west of Galan on path to El Carmen.

25755. Polygala. Flowers purple. Dry rocks, about 4000 ft.
25756. Rubiaceae. Corolla tube purple, lobes green. Along pathway near quebrada. Alt. about 4000 ft.

September 16. Between Bucaramanga and Socorro.

25757
25758
25759

September 17. South of Socorro

25760
25761

September 18. 12 km. W. of Jesus Maria. Alt. 7000 ft.

25762. Ladenbergia. Veins of leaves r d.
25763. Viburnum. Shrub 1 m. tall; flowers white; fruit dark blue.

September 19. Florian

25764. Rorippa. Mass collection . Roadside
25765. Polygonum. Mass collection. Roadside.
25766. Mikania? Climbing tangled vine; flowers white. Thicket along path.
25767. Eupatorium. 1 m. or more tall; flowers white. Thicket along path.

25768-25793

SANTANDER DEPARTMENT

September 20. Gentle slope, cut over 20 years ago, with scattered small trees and stump sprouts, intersected with paths. La Belleza, 10 km. N. of Florian. Alt. 6300 ft.

25768. Cinchona pubescens. Tree 12 cm. D.B.H.; veins red; young leaves pale red. BARK, SEEDS
25769. Cinchona officinalis. Stump sprout 6 cm. D.B.H.; flowers red. SEEDS, BARK 4.5 TCA, 0 %S.
25770. Cinchona officinalis. Stump sprout 8 cm. D.B.H. SEEDS, BARK 3.0 TCA.
25771. Cinchona officinalis. Seedling 3 cm. thick; stipules green when young, red in age.
25772. Cinchona officinalis. Tree 15 cm. D.B.H. Many capsules diseased and aborted. SEEDS, BARK 6.0 TCA, 0.3 %S.
25773. Fungus. On capsules of Cinchona officinalis #25772.
25774. Phytolacca. Moss collection. Clearing and pathway.

September 21. Road southwest from La Belleza to Otro Mundo, west of Florian.

25775. Cinchona officinalis. Tree 2 m. tall, 2 cm. D.B.H. 5600 ft.
26776. Phytolacca. Moss collection. Along path 8-14 km. from La Belleza. 2500-3000 ft.
25777. Phytolacca. Moss collection. Clearings, finca "Buenos Aires" 14 km. SW. of La Belleza. Alt. 2500 ft.

September 22. Q, la Quitaz, near Otro Mundo, W. of Florian.
25778. Leguminosae. Petals white with pink midrib and light pink near midrib. Alt. 850 ft.
25779. Leguminosae. Same as #25778, fruit. (Labelled 25784)
25780. Cacao. Small tree 3 m. tall. Hillside, 1400 ft.
25781. Cinchona Henleana. Wooded ridge near Buenos Aires. 2500 ft. BARK

September 23. Roadside southwest from La Belleza to Otro Mundo, west of Florian.
25782. Cinchona officinalis. Tree 10 cm. D.B.H., 6 m. tall. SEEDS, BARK 2.8 TCA. Alt. 5800 ft.
25783. Lichen? On Cinchona officinalis #25782.
25784. Cinchona sp. About 500 ft. (#25770 also bears this number)

September 24. NW. of La Belleza. Alt. about 8000 ft.
25785. Rubus. Primocanes branching. On limestone outcrop.
25786. Juncus. Pastured hillside.
25787. Juncus. Pastured hillside.
25788. Ranunculus? Standing water in sink-hole.
25789. Rorippa? Standing water in sink-hole
25790. Cyperus. Standing water in sink-hole.
25791. Cinchona pubescens. Branch 8 cm. in diameter, on trunk 50 cm. D.B.H. About 1 km south of waterfall "La Humadora". BARK 8000 ft.
25792. Cinchona officinalis. Stump sprout 4 m. tall. 5 cm. thick. Residual tree in clearing near waterfall "La Humadora". Alt. 8000 ft. BARK.

25793. Cinchona officinalis . (same) SEEDS, BARK 4.0 TCA.

25794-25822

SANTANDER DEPARTMENT

September 25. East of La Belleza, on trail to Sucre.
25794. Typha. Small shallow pool. Alt. 7650 ft.
25795. Utricularia. Flowers yellow. Small shallow pool, alt. 7650 ft
25796. Callitriche. Small shallow pool. Alt. 7650 ft.
25797. Alga? Light green tufts on trunk of Cinchona pubescens,25789. Wooded hillside. 7500 ft.
25798. Cinchona pubescens. Sprout 15 cm. thick on stump 30 cm. thick. Wooded hillside. 7500 ft. SEEDS, DARK.
25799. Cinchona pubescens. Trunk 30 cm. D.B.H. Wooded hillside, 7500 ft. BARK.
25800. Hypericum. Flowers yellow; fruit red. Rock-cut, pathway about 6 km. E. of La Belleza. Alt. about 6500 ft.
25801. Phytolacca. Intermediate, flowers a little lighter than in form with short inflorescence. Roadside about 4 km. E. of La Belleza. Alt. about 6500 ft.
25802. Phytolacca. Mass collection. Roadside about 4 km. E. of La belleza. Alt. about 6500 ft.

September 26. East of La Belleza, on trail to Sucre.
25803. Apaveraceae. Shrub; juice orange. Alt. 7400 ft. About 6 km. E. of La Belleza.
25804. Orchidaceae. Flowers white. About 6 km. E. of La Belleza. Alt. 7400 ft.
25805. Lycopodium. Rock Bank, about 6 km. E. of La Belleza. 7100 ft.
25806. Cinchona pubescens? Leaves shining above, with red veins. Roadside thicket, about 6 km. E. of La belleza. Alt. about 7000 ft.

September 26. "Moravia", level valley east of La Belleza. 7000 ft.
25807. Callitriche. Pool in pasture; terrestrial form on mud.
25808. Callitriche. Pool in pasture; aquatic form in 20 cm. water.
25809. Callitriche. Pool in pasture; subaquatic form at water's edge.
25810. Mimulus. Prostrate; corolla yellow, palate hairy and spotted with light brown. Muddy shore of stream.
25811. Equisetum. Muddy bank of stream.
25812. Cardamine? Muddy bank of stream and shallow water,
25813. Paspalum. Pasture. Turrum Chase Type
25814. Juncus. Mass collection. Pasture.
25815. Flowers yellow. Among tree trunks at edge of stream.
25816. Fragaria. Achenes in pits about ½ the depth of the length of the achene. On hummocks in pastured swamp.
25817. Epilobium. Stem and old leaves red; sepals and ovaries red or green; petals white or pink on the same plant. Among grasses and sedges in pastured swamp.
25818. Juncus. Pastured swamp.
25819. Gramineae. Spikelets purple. On rotting log in pastured swamp.
25820. Eleocharis. On old log in pool.
25821. Hieracium. Flowers yellow. Cleared woods along path.

September 26. In stream entering sink-hole, about 1.5 km. E. of La Belleza. Alt about 6500 ft.
25822. Mimulus. Prostrate; corolla yellow, palate hairy and spotted with light brown.

25823-25851

SANTANDER DEPARTMENT

September 26. La Belleza; bark sample sumbitted by Miguel Sanchez, probably from same locality as #25782.
25825. Cinchona officinalis. BARK 3.0 TCA, 0 QS.

September 27. La Belleza,
25824. Cinchona pubescens. Trunk about 20 cm. D.B.H. Alt. 6100 ft. Pasture near waterfall "La Humadora." BARK.
25825. Cladonia. On old trunk, N.W. of La Belleza.
September 28. Road from La Belleza to Florian. Alt. about 6000 ft.
25826. Orchidaceae. Flower orange. On fence-post.

September 28. Roadsides E. of Florian.
25827. Malphigiaceae. Prostrate over slate-pile; keys red.
25828. Phytolacca. Intermediate in color, darker than type with long inflorescence and lighter than type with short,

CUNDINAMARCA DEPARTMENT

September 29. Villa Pinzon. Roadside. 8200 ft.
25829. Phytolacca. Flowers light purple; leaves n t red.

September 29. Fallow field 38 km. N. of Bogota
25830. Polygonum. Mass collection

October 2. Between Soacha and El Colego, 25 km. W. of Bogota.
25840. Rubus. Stems ascending then arching, recurving to touch ground., 3-4 m. long. Clay bank.
25841. Rubus.
25842. Agrostis. Moss-covered rock-cut.
25843. Cardamine. Wet gully.
25844. Veronica. Flowers purple. Creeping on vertical wet mossy road cut.
25845. Equisetum. Clay and gravel roadside.
25846. Hydrocotyle. Creeping on vertical wet mossy rock cut.
25847. Eupatorium. Flowers purple; stems very viscid. Thicket, path to Salto de Tequendama.
25848. Marathrum foeniculaceum - determined by A. Dugand. Foliage bright green; flowers purple-red. On rocks in Salto de Tequendama. Type locality.
25849. Alga. Filaments dark olive-green, with swollen joints. In shallow water at brink of Salto de Tequendama.
25850. Phytolacca. Stems and petioles red. Mass collection. Path to Salto de Tequendama.

October 6. Cerro de Guadelupe, Bogota. 9500 ft.
25851. Cyperaceae. Roadside ditch.

25852-28880

CUNDINAMARCA DEPARTMENT

October 8. Cerro de Montserate, Bogota
25852. Lycopodium. Under shrubs, paramo. 10000 ft.
25853. Chusquea. Steep shrubby hillside. 10000 ft.
25854. Aster? Stems shrubby, 1 m. tall; rays purple. 10000 ft.
25855. Lycopodium. Under shrubs, paramo. 10000 ft.
25856. Lycopodium. Under shrubs, paramo. 10000 ft.
25857. Lupinus. Stems creeping; petals purple-blue; standard light purple or white distally. 9500 ft.
25858. Gentianaceae? Corolla lobes light lilac, lined with dark lilac. Mountain crest. 10500 ft.
25859. Lycopodium. Among grass and shrubs, paramo, mountain crest. Alt. 10500 ft.
25860. Shrub 1 m. tall; corolla lobes 4, white, hairy at base within; stamens 4; style 1. Paramo, 10500 ft.
25861. Gramineae. Culms purple, in a dense tuft; spikelets nearly black. Dry mountain crest, 10500 ft.
25862. Scrophulariaceae. Whole plant viscid-glandular; calyx purple; corolla lemon-yellow. Among grass and shrubs, paramo, mountain crest. Alt. 10500 ft.
25863. Eucalyptus. Twigs and petioles red; fruit blue-glaucous. Mountain crest, 10500 ft.
25864. Scrophulariaceae? Corolla pale lilac and white. Among grass, paramo, mountain crest. 10500 ft.
25865. Umbelliferae. Among grass and shrubs. 10500 ft.
25866. Castilleja. Shrub 1.5 m. tall; bracts green
25867. Scrophulariaceae. Calyx dark red; corolla deep red; stamens yellow. Shrubby paramo. 10500 ft.
25868. Oxalis. Stems fleshy, sprawling and climbing among bases of shrubs. Shrubby paramo. 10500 ft.
25869. Oxalis. Stems fleshy, sprawling and climbing among bases of shrubs. Shrubby paramo. 10500 ft.
25870. Plantago. Desiccated pathway back of church. 10500 ft.
25871. Plantgo. Desiccated pathway back of church. 10500 ft.
25872. Orchidaceae. Corolla yellowish. Srassy paramo. 10500 ft.
25853. Hieracium. Flower yellow. Pathway, 10500 ft.
25874. Orchidaceae. Stems 1 m. long; flowers green, then lemon-yellow. Grassy paramo. 10500 ft.
25875. Compositae. Stems creeping on rocky cliff; flowers lavender. Alt. about 10000 ft.
25876. Lycopodium. Creeping, on shrub paramo. 10000 ft.
25877. Compositae. Flowers yellow; bracts purple-margined. Pastured foot-hills. Alt. about 8900 ft.
25878. Polygonum. Weed in cultivated land at foot of mountain. Flowers pink. Alt. about 8800 ft.
25879. Liliaceae. Mass collection. All flowers blue. Shrubby paramo. 10000 ft.
28880. Phytolacca. Mass collection. Flowers rose. Roadway along foot of mountain. Alt. about 9000 ft.

CUNDINAMARCA DEPARTMENT

25881. Polygonaceae? Main stem prostrate, branches erect. Cultivated land in foothills. Alt. about 8800 ft.
25882. Cyperaceae. Dry soil. About 9600 ft.
25883. Orchidaceae. Shrub paramo. About 10000 ft.
25884. Paspalum. Rachis and young spikeltes purple. Rocks, paramo. Alt. 10000 ft.
25885. Gramineae. Rocky paramo. 10000 ft.
25886. Lycopodium. Shrubby paramo. 10000 ft.

October 10. Sesquile.
25887. Rumex. Damp ground.
25888. Polygonum. Damp ground.
25889. Polygonum. Damp ground. One clone.

October 10. Choconta
25890. Lupinus. Low prairie between highway and railroad.
25891. Typha. Leaves exceed spikes. Wet ground between highway and railroad.

BOYACA DEPARTMENT

October 10. Monzano, south of Tunja.
25892. Datura. Semi-shrub, 2.5 m. tall. Corolla red distally, yellow proximally. Toadside.

October 10. Tunja.
25893. Leguminosae. Shrub 1.5 m. tall; flowers yellow. Roadsides and eroded fields.

October 11. Salt flats, Paipa.
25894. Juncus.
25895. Scirpus,
25896. Scirpus.
25897. Phytolacca. Mass collection.
25898. Phytolacca. Stem red.
25899. Spergularia?
25900. Juncus.

October 11. Cerinza
25901. Polygonum. Mass collection. Corn field.

October 11. Shrub paramo north of Belan. Alt. 10100 ft.
25902. Lycopodium. Roadside bank.
25903. Lycopodium. Roadside bank.
25904. Ranunculus. Roadside ditch.
25905. Ranunculus. Roadside ditch.
25906. Sisyrinchium. Flowers yellow. Roadside ditch.
25907. Epilobium. Calyx deep pink; corolla pale. Roadside ditch.

25908-25929

BOYACA DEPARTMENT

October 11. Shrub paramo north of Belen
25908. Eupatorium, Stems shrubby; young branches slightly glutinous; flowers purple. Roadside, 10200 ft.
25909. Vaccinium? Forming mats. 102000 ft.

October 11. Pool on paramo north of Belen. Alt. 10200 ft.
25910. Tillaea.
25911. Ranunculus. Blades floating.
25912. Eleocharis?

October 11. Sandy soil near Rio Susacon, SW. of Susacon
25913. Compositae. Flowe s white.

SANTANDER DEPARTMENT

October 12. Alto del Almorzadero, open paramo, north of Cerrito. Alt. 12000 ft.
25915. Cyperaceae? Forming dense mats; fruits stick in flesh.
25915. Lycopodium. In dense mats 50 cm. in diameter.
25916. Callitriche. In 20 cm. of water in pool.
25917. Tillaea. Bright green patches in 15 cm. water of pool.
25918. Callitriche. In about 30 cm. water in pool.
25919. Castilleja. Bracts green, with distal half scarlet; corolla green, orange-tipped. Saturated sod.
25920. Gentiana. Corolla lobes pale lilac with 5-7 dark veins; anthers brown.
25921. Lycopodium. Leaves on uproght stem mostly orange, those on creeping stems green with orange tips.

October 12. Paramo de Jurado, north of Cerrito. Alt. 10600 ft.
25922. Juncus. Roadside ditch.
25923. Rubus. Among rocks and shrubs.
25924. Lycopodium. Among rocks and shrubs.
25925. Juncus. In saturated soil.
25926. Juncus. In saturated soil.
25927. Juncus. In saturated soil.
25928. Rynchospora. In saturated soil.
25929. Eriocaulaceae. In saturated soil. Forming a dense mat 30 cm. in diameter.

25930-25963

NORTE DE SANTANDER DEPARTMENT

October 13. Mountains S. of Rio Chitaga, E. of Bata. Sarare Road.
25930. Melastomaceae. Flowers pink. Alt. 6100 ft.
25931. Pteridium. Alt. 6100 ft.
25932. Callitriche. Mats on damp ground near hut. Alt. 6500 ft.

October 14. Rio Chitaga, Sarare Road near Labeteca. Alt. 4200 ft.
25933. Marathrum (det. Dugand). Rocks in swift water.
25934. Marathrum. On rocks in swift water.
25935. Marathrum. On rocks in swift water.
25936. Tillandsia. On trees overhanging the river.

October 17. Cucuta. Low pasture along Rio Pamplonita. Alt. 700 ft.
25937. Rubiaceae. Shrub 1 m. tall; flowers white,
25938. Cyperus.
25939. Leguminosae. Tree; filaments white toward base, red toward apex.
25940. Equisetum. Stems 2 m. tall. Roadside ditch.

October 18. Road-cut in shale, Pamplona. Alt 7500 ft.
25941. Galium.

October 19. Paramo SE. of Pamplona, junction of Sarare Road
25942. Juncus bufonius. Roadside ditch.
25943. Taraxacum. Mass collection. Roadside.
25944. Santalaceae. Stem and calyx red; berry waxy white.
25945. Orchidaceae.
25946. Juncus.
25947. Xyris. Flowers yellow.
25948. Ranunculus. Flowers yellow.
25949. Liliaceae. Flowere white, orange with age.
25950. Eryngium.

October 20. Wooded hillside, Sarare Road E. of Bata. Km. 64. 6500 ft.
25951. Cinchona officinalis. Tree 5 cm. D.B.H. BARK. 4.7 TCA, 1.8 QS
25952. Phytolacca. Mass collection.

October 23. Estate of Don Juan Echeverria, E. of Toledo. 8500 ft.
25953. Cyperaceae. Clearing.
25954. Eleocharis. Clearing. (-55 C. pub. BARK 2.2 TCA
25955. Cinchona pubescens. No herbarium specimen; composite BARK sample from 11 trees. 2.2 TCA
25957. Phytolacca. Mass collection. Clearing. Flowers & stem deep purple.
25958. Epilobium. Clearing.
25959. Birds nest made of lichens.

October 24. Estate of Don Juan Echeverria, E. of Bata. Patch of forest. 6700 ft.
25960. Cinchona officinalis. Tree 14 cm. D.B.H.; corolla chocolate-purple. BARK. 4.0 TCA, 1.3 QS
25961. Cinchona officinalis. Tree 12 cm. BARK. 4.5 TCA, 1.3 QS
25962. Lichen? On Cinchona officinalis, # 25961.
25963. Cinchona officinalis. Tree 12 cm. D.B.H., previously stripped about 1 m. on one side. BARK. 4.0 TCA, 1.1 QS

25964-25988

NORTE DE SANTANDER DEPARTMENT

October 24. Estate of Don Juan Echeverria.
25964. Mimulus. Corolla yellow, the lip pubescent and spotted with orange. Wet soggy turf. 7600 ft.
25965. Azolla. Rock slide along stream. 7000 ft.
25966. Lolium. Clearing. 8500 ft.
Habenaria. Flowers yellow-green. Pasture. About 8000 ft.
25967

October 25. Estate of Don Juan Echeverria, E. of Toledo
25968. Hypericum. Flowers dark yellow. Damp pasture. 6900 ft.
25969. Ranunculus. Flowers yellow. Damp pasture. 6900 ft.
25970. Cinchona officinalis. Trunk 12 cm. D.B.H. Woods. 6900 ft. 5.7 TCA, 2.0 QS
25971. Cinchona officinalis. Trunk 14 cm. D.B.H. Woods. 6900 ft. 6.2 TCA, 2.7 QS.
25972. Cinchona officinalis. Trunk 12 cm. D.B.H. Woods. 6900 ft. 3.9 TCA, 0.7 QS
25973. Cinchona officinalis. Corolla dark brownish-purple. Lone tree on steep molasses-grass pasture. 6800 ft.
25974. Echinochloa. Springy places in pasture. 6400 ft.

October 27. Roadsides, Toledo. Alt. 5100 ft.
25975. Eleocharis. Wet clay bank.
25976. Eupatoriae. Flowers blue, white in age.
25977. Tagetes. Foliage heavy-scented; flowers orange. Very abundant along roadsides in this region.
25978. Plantago. Clay bank.
25979. Chlorideae.

October 28. Finca Tapata, near Rio Culaga 20 km. N. of Toledo.
25980. Euphorbia. Red portion of uppermost leaves margined with black. Edge of pathway, Agua Caliente. 9600 ft.

October 28. Finca Tapata, near Rio Culaga 20 km. N. of Toledo
25981. Cinchona officinalis. Wooded hillside, Agua Caliente; a few small trees only. 7400 ft.
25982. Phytolacca. Mass collection along 200 m. of pathway, Agua caliante. 7400 ft.
25983. Melina. Along path protected from grazing by fense. 6900 ft.
25984. Lycopodium. Rocky oathway, Agua Caliente. 7600 ft.

October 28. La Rancheria, 23 km. N. of Toledo up Rio Culaga
25985. Radicula Nasturtium-aquaticum. In mud near spring.
29586. Radicula Nasturtium-aquaticum. Edge of water.
29587. Radicula Nasturtium-aquaticum. In water of spring.
25988. Phytolacca. Mass collection. Clearing.

25989-26013

NORTE DE SANTANDER DEPARTMENT

October 30. Valley of Rio Culaga N. of Toledo
25989. Phytolacca. Mass collection. Roadside 2.5-4 km. N. of Toledo
25990. Orchidaceae. Inflorescence viscid. Thicket about 12 km. N. of Toledo.
25991. Hypericum. Along pathway about 12 km. N. of Toledo.

October 20. Near Labateca.
25992. Malphigiaceae. Vine clambering over bushes near Rio Chitaga.

SANTANDER DEPARTMENT

October 31. Alto del Almorzado, north of Cerrito. 12500 ft.
25993. Potamogeton. In small pool.
25994. Eleocharis. In small pool.
25995. Juncus. In small pool.
25996. Carex. In small pool.
25997. Valerianaceae.
25998. Ranunculus. Flowers yellow. In small pond near the road.
25999 Juncus. In small pond near the road.

October 31. Capitanejo. Alt. 3950 ft.
26000. Cynodon. Dry roadside near mouth of Rio Servita.

November 5. Between Susucon & Capitanejo. Alt. 4200 ft.
26001. Gramineae. Culms in tufts, 1.5 m. tall. Arid hillside.

NORTE DE SANTANDER DEPARTMENT

November 9. Near Quebrada Cueva, 15 km. N. of Cucutilla in valley of Rio Cucutilla. Alt. 7000 ft.
26002. Orchidaceae. Flowers purple. On boulders along stream.
26003. Orchidaceae. Perianth brown striped with purple. On boulders along stream.
26004. Phytolacca. Mass collection. Flowers bright purple. River gravels.

November 10. Steep wooded mountainside near Q. Cueva, 15. km. N. of Cucutilla in valley of Rio Cucutilla. Alt. 8200 ft.
26005. Cinchona officinalis. Tree 7 cm. D.B.H. Leaves not red. BARK.
26006. Cinchona officinalis. Tree 10 cm. D.B.H. Leaves not red. BARK.
26007. Cinchona officinalis. Leaves not red. BARK.
26008. Cinchona officinalis. Tree 14 cm. D.B.H. Leaves not red. BARK.
26009. Cinchona officinalis. Trunk 17 cm. D.B.HL Leaves not red. BARK.
26010. Gramineae. Wet shaded pathway. Alt. 7000 ft.
26011. Lichens. On tree branches in swamp along stream. Alt. 7000 ft

November 12. "Capira", headwaters of Quebrada Carillo, 10 km. E. of Cucutilla.
26012. Cinchona officinalis. Tree 6 cm. D.B.H. Leaves not red. Alt. 7800 ft. BARK.
26013. Cinchona officinalis. Tree 5 cm. D.B.H. Leaves not red. Alt. 8400 ft. BARK.

26014-26036

NORTE DE SANTANDER DEPARTMENT

26014. Cinchona officinalis. Tree 8 cm. D.B.H. No red leaves. Alt. 8100 ft. BARK
26015. Taraxacum. Mass collections. Pasture. 7500 ft.
26016. Lycopodium. 8100 ft.
26017. Rubiaceae. Leaves purple-red beneath. Alt. about 7000 ft.
26018. Rubiaceae. Youngbtree about 3 m. tall. About 7000 ft.
26019. Rubiaceae. Young tree about 3 m. tall. About 7000 ft.

November 14. Valley of Quebrada Chicagua, north of Arboledas.
26020. Andropogon. Burned mountainside. Alt. 6800 ft.
26021. Orchidaceae. Lip yellow, flushed with orange-red onnupper surface; both sides pf corolla lobes yellow with orange-yellow spots; calyx-lobes yellow with orange-yellow spots inside, red-orange outside, revolute. Rocky ridge. Alt. 7600 ft.

November 15. Woods about Quebrada Cueva, north of Arboledas. 8000 ft.
26022. Cinchona officinalis. Tree 20 cm. D.B.H.; leaves not red. BARK
26023. Cinchona officinalis. Tree 8 cm. D.B.H.; leaves not red. BARK
26024. Cinchona officinalis. Tree 3 cm. D.B.H.; leaves not red. BARK

November 18. Between Salazar and Santiago
26025. Nymphaea. Petals white with green veins. In small pool.

November 19. North of Lourdes, between Gramalote & Sardinata.
26026. Eriocaulaceae. Wet roadside bank. Alt. about 4000 ft.

November 21. "Las Mesas" in valley of Quebrada Playona, between Gramalote and Sardinatas.
26027. Cinchona officinalis. Trunk 15 cm. D.B.H., stripped on one side for 1.5 m. Alt. 6000 ft. BARK
26028. Cinchona officinalis. Trunk 12 cm. D.B.H.; corolla tube red, lobes nearly black. Alt. 6200 ft. BARK
26029. Cinchona officinalis. Trunk 8 cm. D.B.H. 6200 ft. BARK
26030. Cinchona officinalis. Trunk 13 cm. D.B.H. Alt. 6000 ft. BARK

November 24. Between Salazar and Santiago.
26034. Nymphaea. In small pool

November 27. Mountains above "Villa Marina," between Pamplona and Bochalema. Alt. 8000 ft.
26031. Cinchona officinalis. Branch 14 cm., from trunk 25 cm. D.B.H. BARK
26032. Cinchona officinalis. Trunk 12 cm. D.B.H. BARK
26033. Cinchona officinalis. Tree 7 cm. D.B.H., 5 m. tall. BARK
26034. (see after 26030)
26035. Phytolacca. Mass collection along trail. Alt. about 6000 ft.
26036. Phytolacca. Mass collection along trail. Alt. about 6000 ft.

26037-26045

NORTE DE SANTANDER DEPARTMENT

November 29. 6 miles north of Pamplona, junction of Sarare Road

26037. Juncus bufonius. Mass collection. Roadside ditch
26038. Phytolacca. Mass collection. Roadside.
26039. Alnus. Mass collection. Small trees bordering road.

November 30. Cordillera de Rio Colorado, km. 55 on Sarare Road, east of Bata

26040. Cinchona officinalis. Tree 5 cm. D.B.H. 5600 ft. BARK
26041. Cinchona officinalis. Trunk 14 cm. D.B.H., stripped for 2 m. BARK
26042. Cinchona officinalis. Trunk 8 cm. D.B.H. 5700 ft. BARK
26043. Cinchona officinalis. Trunk 16 cm. D.B.H. 5600 ft. BARK
26044. Rubiaceae. 5600 ft.
26045. Rubiaceae. 5600 ft.

All the names in this list are provisional only, and none of them are to be regarded as authentic identifications.

BOTANICAL COLLECTIONS OF N. C. FASSETT IN COLOMBIA, 1944.

26001 - 26096 are collections in Bogota, in Santander Dept. and Norte de Santander Dept.; the data are on the sheets.

SANTANDER DEPARTMENT

April 22. Mule path to Bolivar, 10 km. N.W. of Velez.
25095. Cinchona pubescens. Tree 5 cm. D.B.H., 4 m. tall, in ravine 3 km. N.E. of Bolivar. BARK.
25096. do. Mass collection.
25097. Gramineae. Rocky side of path.
25098. Andropogon. Rocky side of path.
25099. do. Rocky side of path.
25100. Phytolacca. Mass collection along about 1 km. of path.

April 23. ½ km. S. of Berveo, 15 km. N.W. of Velez. 7000 ft. alt.
25001. Cinchona pubescens. Mass collection.
25002. Cinchona pubescens. Tree 20 cm. D.B.H., 12 m. tall, scattered on hillside. BARK.
25003. Cinchona pubescens. Tree 30 dm. D.B.H., 12 m. tall. BARK.
25104. Cinchona officinalis. Tree 5 cm. D.B.H., 2.5 m. tall, on lightly wooded hillside. BARK 3.7 TCA.
25105. Cinchona officinalis. Tree 5 cm. D.B.H., 2 m. tall. BARK 3.4 TCA.
25106. Cinchona officinalis. Mass collection.
25107. Aroid. Moist place in woods.
25108. Cinchona officinalis. Stump sprouts 40cm. tall.
25109. Cinchona officinalis. Saplings 1.5 m. tall.
25110. Rubiaceae. "Quinone" Wooded hillside.
25111. Rubiaceae? Wooded hillside.

April 23. Berveo, along mule path toward Bolivar. 7000 ft. alt.
25112. Taraxacum. Mass collection.
25113. Phytolacca. Mass collection.
25114. Rorippa. Moist places.
25115. Gramineae.
25116. Parasite on 25115.
25117. Lycolodium. Moist bank.

April 24. Olla de Panama, 15 km. W. of Bolivar.
25118. Cinchona officinalis. Tree 10 m. tall. Densely wooded hillside. 6800 ft. alt., BARK 5.9 TCA.
25119. Cinchona officinalis. Tree 10 cm. D.B.H., 6 m. tall. Densely wooded hillside. 6500 ft. alt. BARK 4.2 TCA.
~~25120. Rubiaceae. "Quinone" Tree 20 cm. D.B.H., 6 m. tall. Densely wooded hillside. 6500 ft. Alt. BARK.~~
25120. Tree. Densely wooded hillside. 6900 ft..alt.
25121. Rubiaceae. Densely wooded hillside. 6900 ft. alt.
25122. Agrostis. Hilltop 1 km. W. of Bolivar. Alt. 9000 ft.
25123. Rubiaceae. "Quinone" Tree 20.cm. D.B.H., 6 m. tall. Densely wooded hillside. Alt.,6500 ft. BARK.
25124. Sanicula. Densely wooded hillside. Alt. 6900 ft.
25125. Viola. " " " " " "
25126. Melastomaceae. " " " " " "
25127. Rubiaceae. " " " " " "
25128. Phytolacca. Mass collection along path.
25129. Cinchona pubescens. Londres, 10 km. W. of Bolivar. Alt. 9000 ft. BARK.

25130. Orchidaceae. Fl. orange. Path 1 km. W. of Bolivar. Alt. 9000 ft.
25131. Orchidaceae. " " " " " " " " " " "

SANTANDER DEPARTMENT

April 26. El Espejo, near La Paz, NE. of Velez. Alt. 7300 ft.
25132. Cinchona officinalis. Stump sprouts 3 cm. thick, 2 m. tall, from trees cut 6 months ago. BARK 0.8 TCA.
25133. Cinchona officinalis. Similar sprouts. BARK 2.0 TCA.
25134. Rubiaceae. "Quinone" of "Quina amarilla" Tree 15 cm. D.B.H., 6 m. tall. BARK, NMTT
25135. Rubiaceae. "Quinone"
25136. Tree (said to be mistaken for Quina)
25137. Rubiaceae? Deep woods.
25138. Rubiaceae? Recently cleared woods.
25139. Rubiaceae? Recently cleared woods.
25130. Phytolaccaea. Clearing.
25141. Nasturtium. Stream in pastured hillside.
25142. Juncus. Mass collection on pastured hillside.

April 26. Thickets near Chipata, NE. of Velez.
25143. Oxalis.

April 27. La Sabaneta, E. of Velez. Alt. 7200 ft.
25144. Polygonum. Wet spots on pastured hillside.
25145. Begonia. Fl..scarlet. Among down timber in cleared woods.
25146. Polygonum. Mass collection.
25147. Phytolacca. Mass collection. Among down timber in cleared woods.
25148. Eleocharis . Along a little stream, pastured hillside.
25149. Polygonum. Wet spots on pastured hillside.
25150. Juncus. Wet spots on pastured hillside.

April 27. Mule path, Puente Grande, NE. of Velez.
25151. Phytolacca/

April 27. Trail from La Paz to Velez.
25152. Equisetum. Stems 2 m. tall.
25153. Polypodium. Rocky bank.

May 4. Region about La Paz, NE. of Velez.
25156. Cassia. Pathway near Chipata. Fl. yellow.
25157. Monina. Fl. blue & yellow. Pathway near Chipata.

May 5. Region about La Paz, NE. of Velez.
25158. Cinchona sp. Tree 5 cm. D.B.H., 4 m. tall. Dense thicket, Agua Blanca. BARK Grahe negative. Alt. 6250 ft.
25159. Graminease. Pathway in thicket, Agua Blanca. Alt. 6250 ft.
25160. Cinchona sp. Mass collection. Dense thicket, Agua Blanca.
25161. Rubiaceae. Pathway, Agua Blanca. Alt. 6250 ft.
25162. Rubiaceae. Pathway, Agua Blanca. Alt. 6250 ft.
25163. Cinchona sp. Thicket, Agua Blanca. Trunk 8 cm. D.B.H., 8 m. tall. BARK Grahe negative. Canta Ranas.
25164. Cinchona sp. Thicket, Canta Ranas. Tree 6 cm. D.B.H., 5 m. tall. BARK Grahe negative.
25165. Cinchona sp. Densely wooded ridge, Mico Cargado. Alt. 6450.
25166. Goodyeara. " " " " " " "
25167. Cinchona sp. Corolla light yellowish-green in bud, white in flower. Densely wooded ridge, Mico Cargado. Alt. 6450.
25168. Cinchona sp. Flowering branch. Densely wooded ridge, Mico Cargado.
25169. Cinchona sp. Sterile shoot. " " " " "
25170. Cinchona sp. Densely wooded ridge. Mico Cargado. Alt. 6450. BARK Grahe negative.

SANTANDER DEPARTMENT

May 5. Region about La Paz, NE. of Velez (continued)
25171. Compositae. Woody, 3 m. tall. Thicket beside path, Canta Ranas.
25172. Rubiaceae. "Quinone" Woods, Canta Ranas. Alt. 6400 ft.
25173. Cinchona sp. Corolla fleshy, lobes and upper part of tube pale greenish-yellow ~~peach-color~~ without. Wooded ridge, Canta Ranas. Alt. 6400 ft. BARK Grahe negative.
25174. Cinchona sp. Corolla fleshy, lobes and upper part of tube peach-color without. Wooded ridge, Canta Ranas. Alt. 6400 ft.
25175. Cinchona sp. Corolla floshy, lobes and upper part of tube pale greenish-yellow without. Wooded ridge, Canta Ranas. Alt. 6400 ft.
25176. Juncus. Pastured hillside, Canta Ranas. Alt. 6400 ft.
25177. Malvaceae. Coarse herb 2 m. tall; corolla and filament tube yellow, anthers cream or yellow, stigmas scarlet. Moist pasture, Canta Ranas. Alt. 6300 ft.
25178. Cinchona ~~xxxxxxxxxx~~ pubescens. Stump sprouts; only tree seen in region. Pasture, Canta Ranas. Alt. 6300 ft.
25179. Cinchona officinalis. Seedling or stump sprout, 1 m. tall; Red on stem, older stipules, midrib of young stipules, petioles, midribs above, and leaves below. Edge of woods, Canta Ranas, Alt. 6400 ft.
25180. Monina. Buds green or dark blue; flowers blue with yellow keel; fruits scarlet. Canta Ranas. Alt. 6400 ft.
25181. Phytolacca. Mass collection, path from Canta Ranas to Agus Blanca.

May 6. La Paz, North east of Velez. Alt. 6300 ft.
25182. Taraxacum. Mass collection. Street in town.
25183. Cinchona pubescens. Tree 30 cm. D.B.H., overhanging stream in ravine ½ km. N.E. Corolla tube scarlet without, amd within except for ciliate margin.
25184. Pteridium. Trail N.E. Only one ~~xxxxxxx~~ lower dividion of frond collected.
25185. Citrus. Cultivated, hotel.
25186. Daucus. Pathway up ravine ½ km. N.E.
25187. Cinchona pubescens. Stump sprout. Ravine ½ k.. N.E.
25188. Rubus (Eubatus) Pathway in pastured ravine.
25189. Araceae. Wet wooded bank near stream. Spathe usually light pink, white of some clones.
25190. Cyclanthaceae. Edge of stream, partly in water.
25191. Melastomaceae. Tree, ¼ km. northof town.
25192. Andropogon. Clay soil along trail.
25193. Piperaceae.

May 7. West of La Paz on trail to Recreo. North East of Velez.
25194. Ladenbargia. Tree 8 m. tall. 1.5 km. W. of La Paz. Alt. 6800 ft. BARK, NMTT.
25195. Cinchona sp. 1 km. W. of La Paz.
25196. Cinchona sp. Trail between La Paz and Recreo. Alt. about 5000 ft.
25197. Usnea. "Barba de palo" On trees. Alt. about 4500 ft.
25198. Cephaelis. About 6 km. W. of La Paz.
25199. Phytolacca. 5 km. W. of La Paz.
25200. Cinchona officinalis. Stump sprout. 1 km. W. of La Paz.

SANTANDER DEPARTMENT

May 8. Cerro de Quinal, Recreo. Alt. 3600 ft. N. of Velez.
25201. Cinchona Henleana. Tree 5 m. tall, 8 cm. D.B,H. BARK.
25202. Cinchona Henleana. Single sterile stem in woods, 3 m. tall.
25203. Rubiaceae.
25204. Remijia pedunculata. BARK 2.5 TCA.
25205. Remijia pedunculata. Tree with insect galls. BARK 3.3 TCA,2.9 QS .
25206. Remijua pedunculata. Mass collection.
25207. Remijia pedunculata. Tree with insect galls. BARK, NMTT 1.9 TCA.
25208. Cinchona Henleana. Corolla white, with light greenish-yellow tube. BARK, NMTT
25209. Cinchona Henleana. Corolla white, with light greenish-yellow tube. BARK, NMTT.
25210. Palmae. Leaves from a small tree, fruit from a tall one.
25211. Cinchona Henleana. Mass collection.
25212. Eryngium. In garden.

May 9. Between Recreo and Mira Buenos, about 25 km. N.W. of Velez.
25213. Cinchona Henleana. Alt. 2800 ft. BARK, NMTT.
25214-16. Cinchona Henleana. Sterile tips of young trees.
25217. Gramineae. Grown in clearings for horse feed,
25218. Phytolacca. Clearing east of Quebrada la Negra. Only one seen.
25219. Warzewiczia. Recreo.

May 10. Between Mira Buenos and Jordan, about 50 km. N. of Velez.
25220. Cinchona Henleana. Woods west of Rio Quirata. Alt. 2600 ft. BARK.
25221. ? Small little-branched tree, 5 m. tall.
25222. Pasoqueria. Corolla white. East side of ridge between Rio Quirata and Jordan. Alt. 3300 ft. BARK, NMTT.
25223. Cinchona Henleana. Summit of ridge between Rio Quirata and Jordan. Alt. 3800 ft. BARK, NMTT.
25224. Melinis. Mira Buenos. Common.

May 13. Velez.
25225. Taraxacum. Mass collection, city streets.

May 14. Jordan, 50 km. N. of Velez. With H. St. John.
25226. Ladenbergia. Tree 10 m. tall. 30 cm. D.B.H.; leaves dark green with veins reddish beneath. Forest remnant, alt. 3100 ft.
25227. Cinchona Henleana. Tree 8 m. tall, 20 cm. D.B.H.; leaves dark shining green; corolla white. Temperate forest, alt. 2800 ft. BARK.
25228. Remijia pedunculate. Tree 7 m. tall, 10 cm. D.B.H.; leaves dull green. Patch of temperate forest, alt. 2800 ft. BARK.
25229. Remijia pedunculata. Mass collection.
25230. Ladenbergia. Tree 15 m. tall, 30 cm. D.B.H.; leaves shining green. Patch of temperate forest, alt. 2600 ft.
25231. Ladenbergia. "Brazil" Tree 12 m. tall, 30 cm. D.B.H.; leaves shining above, lighter beneath. Temperate forest, alt. 2600 ft. BARK
25232. Miliaceae. Tree 15 m. tall, 30 cm. D.B.H.; leaves crowded and plume-like on branch; calyx pink; anthers yellow. Forest by stream, alt. 2700 ft.

SANTANDER DEPARTMENT

May 14. Jordan, 50 km. N. of Velez. With H. St. John. (continued)
25233. Rubiaceae. Tree 8 m. tall, 10 cm. D.B.H.; leaves above dark shining, below pale green; calyx pink; corolla blue;.fruit dry. Temperate forest, 2700 ft.
25234. Phytolacca. Mass collection. Sprawling herbs 1-2 m. tall. Several km. of trail and clearings, "a Venezia.
25235. Rubiaceae. Shrib 1.5 m. tall; leaves above dark shining green, below green; inflorescence yellowish green. Temperate forest, alt. 2600 ft.

May 15. Jordan to La Soledad, 50 km. N. of Velez. With H. St.John.
25236. Remijia pedunculata. Tree 5 m. tall, 5 cm. D.B.H.; flowers white; bark peels hard. El Peligro, 4 km. N.E. of Jordan. Patch of temperate forest, alt. 3200 ft. BARK.
25237. Remijia pedunculata. Sucker shoots.
25238. Remijia pedunculata. Jolandas, 6 km. N.E. of Jordan. Alt. 3300 ft.
25239. Cephaelis. Shrub 1.5 m. tall; bracts rose magenta.
25240. Phytolacca. Mass collection. La Soledad, 20 km. N.E. of Jordan; none seen en route.

May 16. La Soledad to La Putana, 20 km. N.E. of Jordan, 70 km. N.E. of Velez. With H. St.John.
25241. Cyperaceae. Erect 2 m. then sprawling on bushes. Wet tropical forest, 3200 ft.
25242. Carica. "Papaya de monte" 8 m. tall; fruit said to be full ~~size~~/yellow/ size but green, yellow when ripe, edible. Moist tropical jungle, alt. 3200 ft.
25243. Cinchona Henleana. Tree 10 m. tall, 10 cm. D.B.H. Common in moist tropical jungle, La Putana, alt. 3200 ft.
25244. Rubiaceae. "Graniso" Shrub 1.5 m. tall; flowers white. Wet tropical forest. alt. 3200 ft.
25245. Cinchona Henleana. Mass collection. La Putana.

May 17. 10 km. N.E. of Jordan, 60 km. N. of Velez. With H. St.John.
25246. Rubiaceae. Corolla orange; calyx light green and fleshy. Rocky bank (of Rio de la Vuida?).

May 18. Jordan, 50 km. N. of Velez.
25247. Oxalis. Weed in window box.
25248. Sida. Roadside weed.
25249. Sida. Roadside weed. Flowers yellow.
25250. Polygonum. Roadside weed.
25253. Chlorideae. Roadside weed.

SANTANDER DEPARTMENT

May 21. Jordan, 50 km. N. of Velez.
25251. Joosia. Tree 6 m. tall, 5 cm. D.B.H.; stipules standing at almost 90 degrees as they age; corolla 1.5 cm. wide, white, with lobes bifid and irregular-margined. Steep heavily wooded slopes, Quebrada de Pompeia, alt. 2600 ft. BARK.
25252. Cinchona sp. San Jeronimo, alt. 2600 ft. BARK.
25253. (see after 25250)
25254. Ladenbergia? Corolla white, with strong odor of Jasmine.
25255. Joosia.
25256. Joosia. Sprouts.
25257. Calycophyllum? Steep heavily wooded slope, Quebrada de Pompeia.
25258. Calycophyllum? Fruiting inflorescence fallen from tree.
25259. Polypodiaceae. Rotting log near Quebrada de Pompeia.
25260. Polypodiaceae. " " " " " "

May 22. Jordan, 50 km. N. of Jordan.
25261. Joosia. Stipules spreading at almost 90 degrees in age. About 2 km. E. of Jordan on path to Mira Buenos.
25262. Gramineae. Overhanging trial, 4 m. tall, much branched. About 1 km. N.W. of Mira Buenos.

May 23. Mirasol, E. of Jordan.
25263. Remijia pedunculata. Densely wooded hillside, 2700 ft. Fruits on tree felled 6 months ago.
25264. Remijia pedunculata. Tree 5 m. tall, 5 cm. D.B.H. BARK.
25265. Remijia pedunculata. Tree 12 m. tall, 20 cm. D.B.H., lower 3 m. stripped 6 mo. ago; still living, with fruits. BARK.
25266. Remijia pedunculata. Tree 10 m. tall, 10 cm. D.B.H. BARK.
25267. Remijia pedunculata. Tree 6 m. tall. 8 cm. D.B.H. BARK.
25268. Malvaceae. "Abrago" Common weed in pastures and along pathways, the fruits commonly sticking to animals and to clothes. Flowers very pale pink.
25269. Bidens. "Cadillo" Weed in garden.
25270. Cyperus. "Tote" Weed in garden.
25271. Paspalum. "Grama blanca" Common along pathways.
25272. Cyperus. Weed in garden.
~~25273. Gyneriaceae. Common in pastures, moist ground, etc.~~
25273. Chlorideae. Common in pastures, moist ground, etc.
25274. Erechtites. Weed in garden.
25275. Erechtites. Weed in garden.
25276. Cyperus. Weed in garden.

May 24. Wet woods along Rio Quirata, near Mirasol, E. of Jordan.
25277. Ipecacuanha?
25278. Fungus. On rotting wood.
25279. Xylaria. Rotting wood.
25280. Clavaria? Rotting wood and leaves on the ground.

May 25. About 1 km. E. of Jordan on path to Mira Buenos.
25281. Shrub.

SANTANDER DEPARTMENT

May 26. San Jeronimo, ½ km. N.E. of Jordan, 50 km. N. of Velez.
25282. Cinchona sp. Tree 5 m. tall, 5 cm. D.B.H. BARK.
25283. Cinchona sp. Wooded ridge.
25284. Cinchona sp. One sprout, in sections.
25285. Cinchona sp. Mass collections.
25286. Ladenbergia? (Same as #25254) BARK.
25287. Ladenbergia? Young twigs.

May 27. Jordan, 50 km. N. of Velez.
25288. Rubiaceae? Tree 20 cm. D.B.H.; calyx green; corolla white. Dense woods, steep canyon W. of road. BARK.
25289. Rubiaceae? Small tree; corolla yellow. Steep canyon W. of road.
25290. Heteranthera. Flowers white. Roadside ditch.
25291. Passiflora. Sepals light green with one border white; petals white; outer corona purple and yellow, inner light green; filaments deep purple; anthers yellow outside, green and pueple-margined inside. Hanging down rock cliff.
25292. Basidiolichen? Rock cliff, road cut.
25293. Eleocharis. Tendency toward vivipary, and with bract like Scirpus debilis. Roadside ditch.

BOYACA DEPARTMENT

June 6. 5. km. W.S.W. of Arcabuco, valley Rio Pomera
25294. Orthosanthus. Cliff. Flowe s blue.
25295. Lichen. Rock cliff.
25296. Lichen. Rock cliff.
25297. Fragaria. Roadside weed.
25298. Orchidaceae. Petals dull-yellow-brown, with dark red veins; column dark red. Lightly wooded rock cliff.

CUNDINAMARCA DEPARTMENT

June 6. N.E. of Gachancipa
25299. Raphanus. Petals purple, dark-veined. Very abundant and coloring acres of field.
25300. Polygonum. Weed in field.

SANTANDER DEPARTMENT

June 7. Barbosa
25301. Fragaria. Petals yellow. In patio, Gales Hotel.
25302. Brassica. Roadside, road to Velez.

June 8. 12 km. N. of Velez.
25303. Cardamine. Wet talus.

June 9. La Flores, 14 km. N. of Landazuri, 85 km. N. of Velez. 2000 ft
25304. Digitaria. Roadway.
25305. Euphorbia. Roadside.
25306. Gramineae. Driveway.
25307. Portulaca. Driveway.
23308. Jasmine.

SANTANDER DEPARTMENT

June 9. Steep wooded hillside, La Flores, 2050 ft., 85 km. N. ofVelez.
25309. Rubiaceae. BARK turns red inside
25310. Rubiaceae. BARK turns red slightly or not at all.
25311. Rubiaceae. (no herbarium specimen) BARK turns pale peach-color, Grahe negative.
25312. Rubiaceae. (no herbarium specimen) BARK remains nearly white, Grahe negative.
25313. Rubiaceae. Mass collection.

June 10. Cimitarra, 100 km. N. of Velez
25314. Remijia pedunculata. Tree 20 cm. D.B.H., stripped 1.5 m. 6 mo. ago. Flowers white. Wooded ridge, alt. 1350 ft. BARK 2.2 TCA.
25315. Remijia pedunculata. Mass collection. About ½ km. of path along wooded ridge, alt. 1350 ft.
25316. Remijia pedunculata. Tree 15 cm. D.B.H., stripped 1 m. 6 mo. ago. BARK 2.2 TCA. 1350 ft.
25317. Ladenbergia? Trunk 40 cm. D.B.H. BARK Grahe Negative. 1350 ft.
25318. Remijia pedunculata. 5 cm. D.B.H. BARK Grahe negative. 1350 ft.
25319 Remijia or Ladenbergia? Seedling. 1350 ft.
25320. Cyperus. Cleared hillside with Molasses Grass. Alt. 1300 ft.
25321. Cyperus. Cleared hillside with Molasses Grass. Alt. 1300 ft.
25322. Herb with blue flowers. Bank of stream in pasture. 1300 ft.
25323. Same sp., flowers white. " " " " " " "

June 11. Forest S.W. of Cimitarra, in headwaters of Quebrada San Juan, 100 km. N. of Velez
25324. Remijia sp. Tree 12 cm. D.B.H.; flowers yellowish white; bark bright yellow within. 3 km. S.W. of Cimitarra. BARK 1500 ft.
25325. Remijia sp. Mass collection.
25326. Remijia sp. Seedlings 2 m. tall.
25327. Remijia sp. Tree 20 cm. D.B.H. BARK.
25328. "Bejuco de Gras" Long stout vine, source of drinking water. Forest about 4 km. S.W. of Cimitarra. Alt. 1650 ft.
25329. Remijia sp. Tree 12 cm. D.B.H. Forest about 4.5 km. S.W. of Cimitarra. Alt 1650 ft. BARK NMTT.
25331. Remijis sp. Mass collection.
25332. Remijia sp. Collected near Cimitarra by Richardo Carbagal. BARK 2.1 TCA. Dr. Bellis writes: "This sample was highly resinous, very dark colored and too difficult to clear the ppts. well enough to give wholly satisfactory results."

June 12. La Quitiana, near Quebrada San Juan, about 90 km. N. of Velez.
25333. Remijia sp. Tree 15 cm. D.B.H.; flowers white. Wooded ridge, 1400 ft. STIPULES, BARK Grahe negative.
25334. Remijia sp. Tree 12 cm. D.B.H. STIPULES, BARK Grahe negative.
25335, Remijia sp. Mass collection.
25336. Remijia pedunculata. Tree 12 cm. D.B.H., stripped for about 1 m. STIPULES, BARK 2.0 TCA, less than 1.8 QS. Alt 1650 ft.
25337. Remijia pedunculata. Tree 10 cm. D.B.H. STIPULES, BARK 1.4 TCA.
25338. Remijia pedunculata. Trunk stripped 40 ck. STIPULES, BARK 1.8 TCA.
25339. Remijia pedunculata. Trunk 8 cm. D.B.H. STIPULES, BARK
25340. Remijia pedunculata. Trunk 12 cm. D.B.H., stripped 1 m. STIPULES, BARK.
25341. Remijia pedunculata. Trunk 12 cm. D.B.H. STIPULES, BARK 1.9 TCA.
25342. Remijia pedunculata. Trunk 15 cm. D.B.H., stripped 1.5 m. STIPULES, BARK 1.8 TCA, less than 1.7 QS.
25343. Remijia

SANTANDER DEPARTMENT

25343. Remijia pedunculata. Mass collection. Alt. 1650 ft.
25344. Ladenbergia? Trunk 30 cm. D.B.H.; flowers white. Alt. 1650 ft. BARK Grahe Negative.
25345. Remijia sp. 1400 ft., with # 25333-35. STIPULES.
25346. Phytolacca. Mass collection. Pastured clearing, 1350 ft.

June 14. La Union, about 110 km. N. of Velez. Wooded ridge.
25347. Remijia sp. Trunk 10 cm. D.B.H. STIPULES, BARK Grahe negative.
25348. Remijia sp, Trunk 8 cm. D.B.H. STIPULES, BARK Grahe negative.
25349. Remijia sp. Trunk 12 cm. D.B.H. STIPULES.
25350. Remijia sp. Trunk 6 cm. D.B.H. STIPULES.
25351. Remijia sp. Mass collection.
25352. Remijia.sp. Corollas on the ground; white, mostly 5-parted, a few 4-parted.
25353. Andropogon. Cleared spot on ridge.

June 15. Puerto Olaya. Alt. about 400 ft.
25354. Salvinia. Edge of stream.
25355. Gramineae. Stems rooting at nodes, trailing in water.
25256. Pteridophyta. Floating on surface of water.
25357. Cyperaceae. Wet swale.
25358. Echinochloa. In shallow mud on a bridge.
25359. Cyperaceae. Wet swale.
25360. Azolla. Floating in quiet water.
25361. Salvinia. Edge of stream.
25362. Lemna. Edge of stream.
25363. Spirodela. Floating in quiet water with Azolla.
25364. Gramineae. 2 m. tall. Roadside ditches and along Rio Magdalena.
25365. Ludwigia? Petals 5, yellow. Roadside ditch.
25366. Leguminose. Shrub. Roadside.
25367. Canna. Flower scarlet. Roadside ditch.
25368. Euphorbia. Roadside.
25369. Leguminosae. Leaves sensitive. Roadside.
25370. Commelina. Roadside.

June 16. Puerto Olaya. Alt. about 400 ft.
25371. Utricularia. Quiet pool.
25372. Shrub said to poison bulls. Finca of Amilio Piedrahata, 6 k. E. of Puerto Olaya.
25373. Cyperaceae. Shallow water of swale. about 7 km. N. of Puerto Olaya.

June 17. Finca of Amilio Londoño, 6 km. N. of Puerto Aquileo
Alt. about 450 ft.
25374. Gramineae. One patch in recently cleared and burned land; the fine masses of panicles look like white mist in the sunshine.
25375. Phytolacca. Mass collection. Recently cleared and burned land.
25376. "Saiba". Tree, sometimes very large, with spiny trunk; milky juice said to be used for fish poison

June 18. 6 Km. W. of Puerto Aquilio.
25377. Mimosa. Roadside.

June 18. Agua Fria, near Cimitarra, 100 km. N. of Velez.
25378. Heliconia. Leaf blades 1.5 m. long, petioles a little longer; inflorescence pendulous; bracts yellow and red. Low ground along Rio Guayabita.

June 19. About 90 km. N. of Velez.
25379. Lemna. Small pool in stream, about 10 km. S.E. of Cimitqrra.

June 19. Densely wooded ridge, La Venezia, near Jordan, 50 km. N. of Velez. Alt. 2800 ft.
25380. Remijia pedunculata. Tree 10 cm. D.B.H. STIPULES, BARK
25381. Remijia pedunculata. Tree 10 cm. D.B.H. STIPULES, BARK.
25382. Remijia pedunculata. Tree 10 cm. D.B.H. STIPULES, BARK
25383. Remijia pedunculata. Tree 10 cm. D.B.H. STIPULES, BARK.

June 20. Steep wooded hillside, La Florez, 85 km. N. of Velez. 2050 ft.
25384. Rubiaceae. Tree 10 cm. D.B.H. STIPULES, BARK Grahe negative
25385. Rubiaceae. Plants 2 m. tall.
25386. Tree 8 cm. D.B.H. STIPULES, BARK Grahe negative. Rubiaceae.
25387. Rubiaceae. STIPULES, BARK Grahe negative.
25388. Ipecacuanha? Plants rare, growing singly.
25389. Ipecacuanha? Mature berries blue.
25390. ? Berries ~~kixe~~ red; petals white.
25391. Rubiaceae. Tree 7 cm. D.B.H. STIPULES, BARK.
25392. Rubiaceae. Tree 5 cm. D.B.H.? STIPULES, BARK Grahe negative.

June 21. "Nueva York", finca in the hills between Landazuri and La Florez, about 75 km. N. of Velez. Alt. 3650 ft.
25394. Remijia pedunculata. Tree 15 cm. D.B.H. STIPULES, BARK
25395. Remijia pedunculata. Trunk 8 cm. D.B.H. STIPULES, BARK 1.2 TCA
25196. Remijia pedunculata. Tree 8 c.. D.B.H. STIPULES, BARK 0.7 TCA
25397. Remijia pedunculata. Tree 8 c,. D.B.H. STIPULES, BARK 1.0 TCA
25398. Remijia pedunculata. Fruits from tree previously felled.
25399. Remijia pedunculata. Mass collection.
25400. Remijia pedunculata. Fruits from tree previously felled.
25401. Remijia pedunculata. Tree 5 cm. D.B.H. STIPULES, BARK 1.0 TCA
25402. Canna. "Sugo" Cultivated.
25403. Cinchona ~~u~~enleana. Flowers with odor of jasmine.

June 22. Cimitarra, 100 km. N. of Velez.
25404. Ludwigia. Flowers yellow. Wet margin of small stream.
25405. Creeping vine. Flowers yellow.

June 27. Landazuri, 70 km. N. of Velez.
25406. Gramineae. On wet cliff.
25407. Cephaelis. Dense woods, "Alta Mira", 15 km. N. of Landazuri.

June 28. Landazuri, 70 km. N. of Velez.
25408. Phalloid. On rotton log, "Mira Alta", 15 km. N. of Landazuri.

SANTANDER DEPARTMENT

June 29. Cerro de Armas region, about 90 km. N. of Velez.
25409. Root parasite? Corolla purple, 6-parted, 3 lobes larger; young fruit white; stem and scale leaves dark purple. Deep forest, Cerro la Isla. Alt. 3000 ft.
25410. Melastomaceae. Pubescence purple; inflated leaf-bases with ants; young fruit orange. Deep forest, Cerro la Isla. Alt 3000 ft.
25411. Rubiaceae. Deep forest, Cerro la Isla. Alt 3000 ft.
25412. Cinchona Henleana. Near Cerro de Paramo, Alt. 3000 ft.
Collector Jaime Llobell E.

June 30. Cerro de Paramo, Cerro de Armas region, 90 km. N. of Velez
25413. Rubiaceae. Flower white, slightly yellowish outside, with odor of Jasmine. Exposed peak, 6200 ft. BARK, Grahe negative.
25414. Rubiaceae. Trunk 8 cm. D.B.H. BARK Grahe negative
25415. Orchidaceae. Forming dense thickets 2 m. high. Alt. 6000 ft.
25416. Bifaria? Shrub paramo, Alt. 6200 ft.
25417. ? Shrub paramo, alt. 6200 ft. Bracts & flowers deep pink.
25418. Musci. Draping tree trunks for 2 m. Alt. 6200 ft.
25419. Musci. Draping tree trunks for 2 m. Alt. 6200 ft.
25420. Pteridophyta. On tree trunks. Alt. 6200 ft.
25421. Lycopodium. Stem 2 m. long. Alt. 6000 ft.
25422. Cinchona sp. Wooded ridge at 5300 ft. (occurs to 6000 ft).
25423. Cinchona sp. Mass collection. No leaves with red veins.
25424. Root parasite? Lower stem purplish, rest of plant white. Deep woods, 6000 ft.
25425. Goodyera? Deep woods, 5500 ft. Leaves reddish on smaller plant.

July 1. Cerro de Armas region, about 90 km. N. of Velez.
25426. Araceae. In clearing, Cerro la Isla, 3000 ft. Petiole 1.5 m. long, rolled at base, green and marked with whitish; blade 2-parted; corm 1 cm. in diameter, said to be ground and used for snake bite.
25427. Rubiaceae. Tree 12 cm. D.B.H.; buds dee pink much like Cinchona pubescens. Near headwaters of Quebrada de Armas, about 4500 ft.
25428. Rubiaceae. Flowers white. Deep forest near headwaters of Quebrada de Armas.
25429. "Yerba Crista" Each leaf with 1 or 2 blood-red spots; flowers yellow. Deep forest, Cerro la Isla, 3000 ft.
25430. Commelinaceae. Plants 2 m. tall; flowers white, deep pink at base. Rocky stream-bed in dense woods, Cerro la Isla, 3500 ft.
25431. ? Vine said to have been used by the Indians for poisoning arrows; also sold in the market at Velez, the guides know not why.

July 2. Cerro de Paramo, Cerro de Armas region, 90 km. N. of Velez
25432. Gentianaceae? Flower scarlet. Shrub paramo, 6200 ft.
25433. Bromeliaceae. Arboreal, 6200 ft.
25434. Bromeliaceae. Flowers scarlet. Arboreal, 6200 ft.
25435. Neurolepis? Selected small specimens; some are 1.5 m. long. Roots coated with clear colorless jelly. Called "Langua jira? and said to be characteristic of tierra fria and often to grow with quina.

July 3. Landazure, 70 km. N. of Velez.
25436. Melastomaceae. Inflated leaf-bases inhabited by ants. Woods about 10 km. N. of Landazuri.

SANTANDER DEPARTMENT

July 4. East side of Rio Guayavita, on wooded hillside 10 km. S. of Cimitara, about 90 km. from Velez. Guided by Luis Rubiano.

25437. "Ipecuanha morada" About 20 plants in area of 2 m. in diameter. Rootstocks 12-15 mm. thick; berries blue. ROOT SAMPLE.
25438. "Ipecacuanha amarilla" Same locality. Berries said to be yellow.
25439. "Ipecacuanha amarilla" Same locality, low ground along river. Five plants in area of 2 m. ROOT SAMPLE.
25440. "Ipecacuanha amarilla" 5 plants seen. ROOT SAMPLE.

BOYACA DEPARTMENT

July 6. Paramo between Tunja and Arcabuco.

25441. Phytolacca. Roadside.
25442. Polytrichum.
25443. Oxalis. Flowers yellow.
25444. Oxalis. Flowers yellow.
25445. Viola. Calyx purple; corolla white.
25446. Compositae.
25447. ?
25448. Vicia?
25449. Cladonia.

July 6. Paramo south of Tunja, on road to Bogota.

25450. Dicronema?
25451. Hypericum. Flowers yellow.

CUNDINAMARCA DEPARTMENT

July 14. Roadside, 23 km. N. of Bogota.

25454. Oxalis. Leaves fleshy; flowers yellow.
25455. Oxalis. Flowers yellow.
25456. Oxalis. Stems creeping; flowers yellow.
25457. Oxalis. Stems creeping; flowers yellow.
25458. Spergula.
25459. Prunus. Tree 20 cm. D.B.H.
25460. Prunella?
25461. Prunella.
25462. Galinsoga. Rays white above, purple beneath.
25463. Achillaea. Rays purple. Pasture near road.

SANTANDER DEPARTMENT

July 16. Wooded ridge, 1350 ft., Cimitarra, 100 km. N. of Velez
25466. Melastomaceae. Flowers white. Edge of woods.
25467. Remijia pedunculata. Tree 12 cm. D.B.H. Bark & twigs pickled for morphological study; STIPULES, BARK 2.3 TCA.

July 16. Forest 3 km. S.W. of Cimitarra, 1600 ft., 100 km. N. of Velez
25468. Remijia sp. Tree 14 cm. D.B.H. Bark & twigs pickled for morphological study; STIPULES, BARK.
25469. Remijia sp. STIPULES.

July 17. Wooded ridge. 1350 ft., Cimitarra, 100 km. N. of Velez
25470. Remijia pedunculata. One of trees cut as #25314-18. STIPULES only.
25471. Remijia pedunculata. One of trees cut as # 25314-18. STIPULES only
25473. Remijia pedunculata. One of trees cut as #25413-17. STIPULES only
25473. Pemijia pedunculata. Bark & twigs pickled for morphological study; STIPULES.
25474. Remijia pedunculata? Tree 2 m. tall., 4 cm. D.B.H., with many large-leaves sprouts. STIPULES.

July 17. Wooded hillside near Quebrada San Juan, 17 km. N. of Landazuri, about 90 km. N. of Velez. (Same as Fosberg & Fassett #21830-42).
25475. Remijia pedunculata. Bark & twigs pickled for morphological study; STIPULES.
25476. Remijia pedunculata. STIPULES.
25477. Rubiaceae. Like #25384-87.
25478. Remijia pedunculata. Small plant 2 m. tall.

July 18. Jordan, 50 km. N. of Velez.
25479. Remijia pedunculata. Hilltop called "Jordan." STIPULES; BARK collected with Lieut. Ronzani for his fresh bark extraction.
25480. Cinchona sp. (See #25282) Wooded ridge, San Jeronimo. Bark & twigs pickled for morphological study.
25481. Cinchona Henleana. Along path to La Venezia. Bark & twigs pickled for morphological study.
25482. Remijia pedunculata. Tree 10 cm. D.B.H. Hilltop called "Jordan" STIPULES; BARK collected with Lieut. Ronzani for his fresh bark extraction.
25483. Remijia pedunculata. Tree 25 cm. D.B.H. Hilltop called "Jordan." STIPULES; BARK; bark & twigs pickled for morphological study.
25484. Remijia pedunculata. Small tree 4 cm. D,B,H. STIPULES.
25485. Remijia pedunculata. Tree about 10 cm. D.B.H.? STIPULES.

July 19. Roadsides 17-18 km. N. of Velez.
25486. Phytolacca. Mass collection.

July 20. Oiba.
25487. Gyneriu

SANTANDER DEPARTMENT

July 21. Roadside 12 km. N. of Socorro. Alt. 5400 ft.
25488. Rubiaceae. Tree 6 m. tall; flower sith odor of jasmine; corolla white turning cream-yellow. Bark & twigs pickled for morphological study.

July 22. City streets, Zapatoca. Alt. 5650 ft.
25489. Oxalis. Flowers yellow.
25490. Ambrosia. Foliage fragrant.
25491. Malva. Flowers light blue.
25492. Panicum.
25493. Setaria.
25494. Sporobolus?
25495. Gramineae. Spikelets purple-green.
25496. Gramineae.
25497. Digitaria.
25498. Lepidium.

July 22. Dry hillside ½ km. S. of Zapatoca. Alt. 5650 ft.
25499. Gramineae.
25500. Chlorideae.
25501. Galium. Flowers lemon-yellow.
25502. Chlorideae?
25503. Bidens.
25504. Setaria. Setae and styles red.
25505. Sporobolus? Spikelets reddish.
25506. Lichen. Yellow-orange.
25507., Eryngium. Flowers white.
25508. Cenchrus.

July 23. Mountain west of Zapatoca.
25509. Oncoba? Among dry rocks. Alt. 5000 ft.
25510. Hieracium. Dry pasture. Alt. about 7000 ft.
25511. Lepidium. Weed in finca on W. side of mountain. Alt. 8000 ft.
25512. Polygonum. "Barbasco" Weed in finca. Alt. 8000 ft.
25513. Cinchona pubescens. Tree 1 m. D.B.H., broken and with only one remaining branch 0.5 m. in diameter. Woods on W. side of mountain. Bark & twigs pickled for morphological study; BARK. Alt. 8400 ft.
25514. Andropogon. Dry pastured mountainside. Alt. 6400 ft.
25515. Gramineae. Tufted. Dry pastured mountainside. About 7000 ft.
25516. Orchidaceae. Flowers rose-color. 8200 ft., on E. side of mountain.
25517. Orchidaceae. Flowers rose-color. 8400 ft., on E. side of mountain.
25518. Ophioglossum. In Polytrichum mat on a flat rock. Green portion fleshy. W. side of Mountain, 8300 ft.
25519. Cruciferae. Flowers purple. On moist banks, 8300 ft
25520. Galinsoga. Rays white; tubes yellow. Grassy hillside, 8300 ft.
25521. Galinsoga. Rays and tubes yellow. Grassy hillside, 8700 ft.
25522. Caryophyllaceae. Moist bank, 8300 ft.
25523. Caryophyllaceae. Moist bank, 8300 ft.
25524. Caryophyllaceae. Moist bank, 8300 ft.
25525. Caryophyllaceae. Moist bank, 8300oft.
25526. Caryophyllaceae. Moist bank, 8300 ft.
25527. Commelina. Flowers white. Grassy hillside, 8300 ft.

July 24. Zapatoca

25528. Labiatae. Said to be haenostatic. Thickets in pasture S. of town.
25529. Dry rocky hillside W. of town. Alt. 5700 ft.
25530. Dry rocky hillside W. of town. Alt. 5700 ft.

July 25. West of S. Vicente de Chucuri.

25532. Bidens. Roadside, Nuevo Mundo, valley of Quebrada laLlana.
25533. Cyperaceae. Cement foundation under bridge, Q. la Llana.
25534. Gramineae. Wooded bank, roadside. Nuevo Mundo, near Rio Oponcito.
25535. Leguminosae. Moist bnk near Rio Oponcito.
25536. Mimosa. Flowers white. Roadside weed, Nuevo Mundo.
25537. Mimosa. Flowers pink. Roadside weed, Nuevo Mundo.

July 28. Junction of roads to Bucaramanga and to Zapatoca, 3 km. E. of S. Vicente de Chucuri. Alt. 2800 ft.

25538. Apocynum. Flowers orange.
25539. Leguminosae.
25540. Mimosa. Flowers pink.

July 28. Chima.

25541. Rubiaceae. Tree in forest along Quebrada Chima, 10 km. W. of Town.
25542. Rubiaceae. Tree in forest along Quebrada Chima, 10 km. W. of town.

July 29. Mountains west of Chima, valley of Quebrada Chima.

25543. Cinchona Henleana. Forested hillside along Q. Chima. 4200 ft.
25544. Habenaria. Grassy hillside. 4800 ft.
25545. Cinchona Henleana. Forested hillside. 4700 ft.
25546. Tree called "Quino" and said to be used for paludismo. Alt. about 4600 ft.

July 30. Headwaters of Q. Chima, in mountains west of Chima.

25547. Cinchona officinalis. Tree 15 cm. D.B.H.; flowers dark red; stipules green. Dense forest at 7500 ft. Bark & twigs pickled for morphological study; BARK.
25548. Cinchona officinalis. Tree 15 cm. D.B.H. BARK.
25549. Pteridophyta. On rock slide in stream, under swift water after a rain. 7700 ft.
25550. Phytolacca. Clearing at 8100 ft; only 2 plants seen.
25551. Physalis. Corolla yellow with black markings. Clearing at 8100 ft.
25552. Cinchona sp. Midrib light red above. Deep wooded canyon at 7600 ft. BARK.
25553. Cinchona sp. Midrib not red. Deep wooded canyon at 7600 ft. BARK.
25554. Quercus. Single tree in clearing, 30 cm. D.B.H. 5700 ft.
25555. Rynchospora. Grassy mountainside, 7600 ft.
25556. Gramineae. Culms tufted; spikelets brown. Grassy mountainside at 7600 ft.
25557. Eriocaulaceae. Grassy mountainside at 7600 ft.

July 31. Headwaters of Q. Chima, in mountains west of Chima
25558. Ladenbergia magnifolia (fide Fosberg). Leaves very pale red or green in veins; capsule splitting from below; flowers white. Edge of clearing at 5300 ft. Bark & twigs pickled for morphological study; BARK.
25559. Leonurus. Flowers purple. Land pastured by hogs, about 5000 ft.
25560. Habenaria. Flowers green. Grasslands at 6500 ft.

August 1. San Antonio, in drainage of Q. Chima west of Chima.
25561. Ladenbergia. Tree 12 cm. D.B.H. Wet woods at 7800 ft. Bark and twigs pickled for morphological study.
25562. Habenaria. Flowers green with whitish spur. Grassland, 7000 ft.
25563. Ladenbergia. Forest at 7200 ft.
25564. Orchidaceae. Flower yellow with red-brown stripes. Forested ridge, 8000 ft.
25565. Orchidaceae. Flowers yellow; lip with a scarlet spot. Forested ridge, 8000 ft.
25566. Orchidaceae. Flowers crimson. Forested ridge, 8000 ft.
25567. Orchidaceae. Stem with crimson glutinous spots; flowers lemon-yellow, the column spotted with crimson. Forested ridge, 8000 ft.
25568. Orchidaceae. Flowers yellow; lip with a crimson spot. Forested ridge, 8000 ft.
25569. Graminese. Culms 4 m. long; only a few dwarfed inflorescences not over-ripe. Shrubby sub-paramo, 8300 ft.
25570. Basidiolichen? Blue-green color. On bases of rotting treestrunks at 8200 ft.
25571. Basidiolichen? Blue-green color. On bases of rotting tree-trunks at 8200 ft.
25572. Basidiolichen? Blue-green color. On bases of rotting tree-trunks at 8200 ft.
25573. Cladonia. Among dwarfed trees on ridge at 8200 ft.
25574. Pteridophyte. On trunks of dwarfed trees on ridge at 8200 ft.
25575. Chusquea. In dense thicket at 7000 ft.

& Pan de Azucar

August 2. Near San Antonio, drainage of Q. Chima, mountains N. of Chima.
25577. Ladenbergia magnifolia. Veins with little or no red pigment; in bud but flowers apparently white. Edge of forest at 6800 ft. Bark & twigs pickled for morphological work; BARK
25578. Cinchona pubescens. Leaves with red veins; flowers red. Edge of forest at 6800 ft. Bark & twigs pickled for morphological study; BARK.
25579. Manihot. Cultivated on north slope of San Antonio, about 6800 ft.
25580. Anaphalis? In cultivated land, north slope of San Antonio, about 6800 ft.
25581. Habenaria. ~~Habenaria.~~ Corolla yellowish-white. South slope of Pan de Azucar, 6400 ft.

SANTANDER DEPARTMENT

August 3. Moutains west of Chima, valley of Quebrada Chima.
25582. Corolla nearly white. Grassy hillside, 4800 ft. Habenaria.
25585. Phytolacca. Only 2 plants, along trail. About 4500 ft.

August 4. Weeds in patio, Cinchona Mission office, Bucaramanga
25584. Bidens
25585. Eragrostis. Between paving blocks
25586. Euphorbia. Between paving blocks
25587. Euphorbia

August 11. Path to El Carmen, 20 km. N. of San Vicente de Chucuri
25588. Jussiaea? Flowers yellow; roots spreading and with long white outgrowths whose tips float on the surface. Shallow water, Quebrada de los Indios.
25589. Rubiaceae. Woods along Rio Oponcito. Alt. 1000 ft.
25590. Phytolacca. Along path near Rio Oponcito.

August 12. El Carmen region, SW. of S. Vicente de Chucuri.
25591. Rubiaceae. Small tree; flowers white, fragrant. Alt. 2000 ft. Bark & twigs pickled for morphological study.
25592. Remijia pedunculata. Tree 14 cm. D.B.H. Cerro de Quinol. Alt. 2800 ft. STIPULES, BARK 2.0 TCA, 0 QS.
25593. Remijia pedunculata. Tree 8 cm. D.B.H. Cerro de Quinol, Alt. 2600 ft. STIPULES, BARK 2.7 TCA, 3.2 QS.
25594. Remijia pedunculata. Tree 15 cm. D.B.H. STIPULES, BARK 2.4.TCA, 2.9 QS.
25595. Phytolacca. Along path.

August 13. El Carmen region, SW. of S. Vicente er Chucuri
25596. Ladenbergia magnifolia. Tree 30 cm. D.B.H.; flowers white; petioles and veins brown. BARK.

August 18. Sidewalk at wall of houses. and street, Oiba.
25597. Galinsoga
25598. Galinsoga

BOYACA DEPARTMENT

August 20. Roadside noth of Moniquira. Alt. 7200 ft.
25599. Ranunculus.

August 20. El Cidro, near Q. el Pato, valley of Rio Pozera. 11 km. SE. of Moniquira
25600. Agrostis. Rock ledges in stream-bed.
25601. Panicum. Rock ledges in stream-bed.
25602. Paspalum. Rock ledges in stream-bed.
25603. Paspalum. Rock ledges in stream-bed.
25604. Carhophyllaceae. Hanging over rock ledge.
25605. Hypericum. Roadside.
25606. Erechtites. Folwers rose-color. Roadside.

BOYACA DEPARTMENT

25607. Orchidaceae. Flowers pink. Rock cliff of road-cut.
25608. Orchidaceae. Flowers nearly white. Rock cliff of road-cut.
25609. Orchidaceae. Flowers deep pink. Rock cliff of road-cut.
25610. Orchidaceae. Flowers pink. Rock cliff of road-cut.
25611. Gramineae. Forming stiff sod.
25612. Trifolium. Roadside.
25613. Laersia? Shallow water of roadside ditch.
25614. Hieracium. Path-side.
25632. Juncus. Grassy place.
25615. Lycopodium. Rock cliff of road-cut.
25616. Orchidaceae. Some flowers white, others yellow, in same inflorescence. Rock cliff of roadside.
25617. Cyperus. Roadside ditch.
25618. Commelina. Flowers blue. Roadside.
24619. Tillaea. Muddy roadside ditch.
25620. Medicago. Roadside.
25621. Oxalis. Flowers yellow. Rocky road-cut.
25622. Sisyrinchium. Flowers blue. Roadside.
25623. Cyperus. Roadside ditch.

August 20. In ssturated Sphagnum overlying sand, La Cumbre, drainage of RioPomera, 14 km. NW. of Arcabuco. 8000 ft.

25624. Utricularia. Flowers purple.
25625. Utricularia. Flowers yellow.
25626. Lycopodium
25627. Rynchospora
25628. Xyris. Flowers white
25629. Eriocaulaceae. Large compact clump mixed with Sphagnum.
25630. Eleocharis
25631. Xyris. Flowers yellow.
25632. (See after #25614)

August 20. Cabyon of Rio Pomera, 11 km. NW. of Arcabuco. 8600 ft.

25633. Eriocaulaceae. Wet roadside at foot of cliff
25634. Sisyrinchium. Flowers yellow. Grassy roadside
25635. Orchidaceae. Sepals red at base and on tails, yellow in middle; petals yellow. Mossy cliffs.
25636. Utricularia. Upper sepal metalic purple, lower sepal greenish-yellow; petals pastel purple, throat yellow, spur white. In Sphagnum on perpendicular road-cut.

August 20. North end of canyon of Rio Pomera, near top of cliff, 13 km. NW. of Arcanuco. 9200 ft.

25637. Lycopodium. Trailing over cliff.
25638. Lycopodium, Trailing over cliff.
25639. Eleocharis. Roadside ditch.
25640. Sisyrinchium. Flowers yellow. Grassy roadside.
25641. Juncus. Moist bank.
25642. Hypericum. Roadside.
25643. Juncus. Roadside.
26544. Eleocharis. Shallow water of roadside ditch.
25645. Sisyrinchium. Roadside
25646. Lycopodium. Rosk cut.
25647. Juncus. Roadside ditch.
25648. Juncus. Roadside ditch.

BOYACA DEPARTMENT

August 20. 6 km. NW. of Arcabuco, on savanah.
25649. Lycopodium. Hanging over bank, road-cut.

August 20. Canyon of Rio Pomera, 10 km. NW. of Arcabuco
25650. Cinchona pubescens.

CUNDINAMARCA DEPARTMENT

August 27. Vereda de Rozo, Sabana de Bogota, 4 km. S. of Cota, 30 km. NW. of Bogota

25651. Rumex. Weed in cultivated land
25652. Rumex. Fence-row.
25653. Artemisia? Plant fragrant. Weed in cultivated land.
25654. Spergula. Weed in corn field.
25655. Lepidium. Weed in corn field
25656. Polygonaceae. Stem and old leaves red;,flowers rose; green leaves with a red blotch. Weed in corn field.
25657. Polygonum. Flowers rose; leaves with a red blotch. Weed in corn field.
25658. Polygonaceae. Same as #25656, but dark red. Weed in corn field
25659. Oenothera. Leaves green, turning dark red in age; petals yellowish green, turning orange. Weed in corn field.
25660. Liliaceae. Sepals orange-yellow with 3 green lined; petals orange-yellow with 3 very slender green lines. Weed in corn field.
25661. Leontodon. Flowers bright yellow. Weed in corn field.
25662. Lychnis? Flowers light pink of white; inflorescence with short-stalked glands and long glistning hairs. Weed in corn field.
25663. Viola arvensis. Flowers cream-yellow. Weed in corn field and fence-row,
25664. Primulaceae? Corolla deep blue, dark red at base; filaments dark red; anthers yellow. Among grass, fence-row.
25665. Oenothera, same as 25659. Among grass, fence-row.
25666. Primulaceae?, same as #25664. Filaments white at base, purple above. Weed in corn field.
25667. Oxalis. Flowers yellow. Moist edge of earth dam.
25668. Polygonum. Stem, bracts, ocreae, and rachis of inflorescence dark red; flowers green at base and white toward tip. Moist spot under tree in pasture.
25669. Prunus. Tree in farm-yard.
25670. Jussiaea? Stems prostrate, rooting at nodes; petals yellow. Wet places.
25671. Veronica. Flowers white. Revently flooded irrigation ditch.
25672. Gnaphalium? Slightly fragrant. Roadside.
25673. Gnaphalium? Slightly fragrant. Roadside.
25674. Compositae. Weed in corn fields.
25675. Alnus. Fence-row near irrigation ditch.

August 27. Mule patch in Eucalyptus grove. foot of Cerro de Guadalupe, above Calle 4, Bogota

25676. Plantago
25677. Ranunculus. Petals pale greenish yellow with yellow scale. Making a close mat in a wet place.
25678. Ulex. Flowers yellow.
25679. Veronica.

CUNDINAMARCA DEPARTMENT

August 26. Bought in flower store in Bogota.
25680. Bromeliaceae? "Langostos" Flower with 2 inner bracts; petianth of 3 lance-linear magenta-rose separatesegments; stamens 6, long, hypogenous; anthers linear, basifixed; ovary superior, 3-celled, with numerous axial ovuled; stigmas capitate on long style.

SANTANDER DEPARTMENT

September 5. Headwaters of q. Chirivití, W. of Galen
25681. Ladenbergia. Small tree in thicket left on burned hillside. 8700 ft.
25682. Viola. Flowers blue. Burned and cleared hillside, 8200 ft.
25683. Liliaceae. Flowers pale lilac. Burned and cleared hillside, 8200 ft.
25684. Lycopodium. Burned and cleared hil side, 8200 ft.
25685. Liliaceae, same as #25683. Flowers blue. Burned and cleared hillside. 8100 ft.
25686. Liliaceae, same as #25683. Flowers pale lilac. Burned and cleared hillsied. 8100 ft.
25687. Cyperaceae. Burned and cleared hillside, 7800 ft.
25688. Cladonia. Burned and cleared hillside, about 8050 ft.
25789. Cladonia. Burned and cleared hillside, about 8550 ft.
25690. Cladonia. Burned and cleared hillside, about 8050 ft.
26591. Cladonia. Burned and cleared hillside, about 8050 ft.
25692. Lichen. Thicket, 8300 ft.
25693. Ladenbergia. Flowers white. Dense forest. 8300 ft.
25694. Ladenbergia? Flowers (seen on another tree which could not be reached because of density of vegetation) white. Shrubby paramo near summit of ridge. About 9500 ft.
25695. Compositae. Flowers yellow. Cleared and burned hillside. About 8200 ft.
25696. Rhododendron? (but petals apear separate) Flowers deep pink; shrub 1 m. tall. Burned and cleared hillside. About 8700 ft.
25697. Orchidaceae. Flowers orange or purple-red. Burned and cleared hillside. About 8700 ft.
25698. Hypericum. Shrub less than 1 m. tall; flowers yellow. Burned and cleared hillside. About 8000 ft.
25699. Ericaceae. Shrub about 1 m. tall; flowers white. Shrub-paramo. 9000 ft.
25700. Loranthaceae. Leaves pale green; peduncles and fruit yellowish; flowers red. Shrub-paramo. 9000 ft.
25701. Shrub 1 m. tall; flowers dark blue; fruit red. Shrub-paramo. 9000 ft.
25702. Ericaceae. Shrub 1 m. tall; flowers white. Shrub-paramo. 9000 ft.
25703. Usnea. Shrub-paramo. 9000 ft.
25704. Ericaceae. Shrub 1 m. tall; bracts red. Shrub-paramo. 9000 ft.
25705. Loranthaceae. Same as #25700. Shrub-paramo. 9000 ft.
25706. Shrub 1 m. tall; flowers white. Shrub-paramo. 9000 ft.
25707. Orchidaceae. Epiphytic. Shrub-paramo. 9000 ft,
25708. Orchidaceae? Epiphytic, pendant. Shrub-paramo. 9000 ft.
25709. Cladonia. Shrub-paramo. 9000 ft.
25710. Cladonia. Shrub-paramo. 9000 ft.
25711. Shrub-paramo. 9000 ft.
25712. Bromeliaceae. Bracts red. Shrub-paramo. 9000 ft.

SANTANDER DEPARTMENT

September 6. Finca "Berlin", headwaters of Q. Chiriviti, west of Galan

25713. Cinchona officinalis. Tree about 6 cm. D.B.H. Only tree seen in the region. Edge of forest. 6500 ft.
25714. Caryophyllaceae. In molasses grass pasture. 6700 ft.
25715. Galium. Fruit orange. Molasses grass pasture. 6700 ft.

September 7. Finca "Berlin", headwaters of Q. Chiriviti, west of Galan. Alt. 6500-7000 ft.

25716. Cinchona sp. Densely forested mountain-side.
25717
25718.

September 8. "El Retiro", in Cerro el Guiche, headwaters of Q. Chiriviti, west of Galan.

25719. Rubiaceae. Inflorescence axillary. Steep heavily forested mountain-side. 8400 ft.
25720. Rubiaceae. Inflorescence axillary. Steep heavily forested mountain-side. 8400 ft. BARK
25721. Ericaceae. Bracts red; flowers pink and white. Shrub-paramo at summit. 8900 ft.
25722. Orchidaceae. On mossy trunks of shrubs; flowers solid purple; leaves purplish. Shrub-paramo at summit. 8900 ft.
25723. Orchidaceae. Perianth yellow, lip marked with purple-brown; ovary red ish. Shrub-paramo at summit. 8900 ft.
25724, Orchidaceae. Flowers redpurple; inflorescence terminating a naked stem 1 m. long. Shrub-paramo at summit. 8900 ft.
25725. Lycopodium. Sprawling over shrubs, 8500 ft.
25726. Orchidaceae. On tree-trunks. 8600 ft.
25727. Orchidaceae. On trunks of shrubs; ovary and leaves dark red. Shrub-paramo at summit. 8900 ft.
25728. Pteridophyte. Under shrubs in shrub-paramo. 8900 ft.
25729. Loranthaceae. Ovary brownish green; calyx orange. Shrub-paramo at summit. 8900 ft.
25730. Shrub with red flowers. Shrub-paramo at summit. 8900 ft.
25731. Orchidaceae. Like #25723. Shrub-paramo at summit. 8900 ft.
25732. Orchidaceae. On tree-trunk; flowers lemon-yellow.
25733. Orchidaceae. Flowers yellow with orange center. On tree-trunk, shrub-paramo near summit. 8900 ft.

September 9. Pasture, near finca "Berlin", headwaters of Q. Chiriviti, west of Galan. Alt. 6800 ft.

25734. Daucus.
25735. Sonchus. Growing singly, 1 m. tall; flowers yellow.
25736. Gnaphalium.
25737. Chenopodium.
25738. Erechtites. Flowers purple.

September 9. Wooded mountainside, finca "Berlin", headwaters of Q. Chiriviti, west of Galan. Alt. 7200 ft.

25739. Sanicula.
25740. Trailing on mossy log.

SANTANDER DEPARTMENT

September 2. Steep forested mountainside above finca "Berlin" in Cerro de Guiche, headwaters of q. Chiriviti, west of Galan

25741. Orchidaceae. Flowers very pale greenish-white. Clump on trunk of small tree. 7200 ft.
25742. Lichen. "Lama" Branch of tree. 7300 ft.
25743. Sphagnum. Old leaves red. In a dense clump. 7300 ft.
25744. Orchidaceae? Stems 1 m. long, unbranched; bracts red; flowers pink outside, white within except for red lip. 7500 ft.
25745. Cinchona officinalis. Small tree, 2 cm. D.B.H., the only one seen. 7600 ft.
25746. Usnea. Old plants red. 7700 ft.

September 3. On mossy tree trunks in rain-forest, Cerro de Guiche, above "El Retiro", headwaters of q. Chiriviti, west of Galan. Alt. 8100-8300 ft.

25747. Orchidaceae. Corolla lobes purple, tails lighter.
25748. Orchidaceae. Flowers green and reddish.
25749. Orchidaceae. Flowers greenish.
25750. Orchidaceae. Flower pale yellowish, lip spotted with red.
25751. Orchidaceae. Flowers pale yellowish with red spots.
25752. Orchidaceae.
25753. Orchidaceae. Flowers pale red.
25754. Orchidaceae.

September 10. Valley of q. Chiriviti, west of Galan on path to El Carmen.

25755. Polygala. Flowers purple. Dry rocks, about 4000 ft.
25756. Rubiaceae. Corolla tube purple, lobes green. Along pathway near quebrada. Alt. about 4000 ft.

September 16. Between Bucaramanga and Socorro.

25757
25758
25759

September 17. South of Socorro

25760
25761

September 18. 12 km. W. of Jesus Maria. Alt. 7000 ft.

25762. Ladenbergia. Veins of leaves r d.
25763. Viburnum. Shrub 1 m. tall; flowers white; fruit dark blue.

September 19. Florian

25764. Rorippa. Mass collection. Roadside
25765. Polygonum. Mass collection. Roadside.
25766. Mikania? Climbing tangled vine; flowers white. Thicket along path.
25767. Eupatorium. 1 m. or more tall; flowers white. Thicket along path.

SANTANDER DEPARTMENT

September 20. Gentle slope, cut over 50 years ago, with scattered small trees and stump sprouts, intersected with paths. La Belleza, 13 km. N. of Florian. Alt. 6300 ft.

25768. Cinchona pubescens. Tree 12 cm. D.B.H.; veins red; young leaves pale red. BARK, SEEDS
25769. Cinchona officinalis. Stump sprout 8 cm. D.B.H.: flowers red. SEEDS, BARK 4.3 TCA, 0 QS.
25770. Cinchona officinalis. Stump sprout 8 cm. D.B.H. SEEDS, BARK 3.0 TCA.
25771. Cinchona officinalis. Seedling 3 cm. thick; stipules green when young, red in age.
25772. Cinchona officinalis. Tree 15 cm. D.B.H. Many capsules diseased and aborted. SEEDS, BARK 6.0 TCA, 0.3 QS.
25773. Fungus. On capsules of Cinchona officinalis #25772.
25774. Phytolacca. Mass collection. Clearing and pathway.

September 21. Road southwest from La Belleza to Otro Mundo, west of Florian.

25775. Cinchona officinalis. Tree 2 m. tall, 2 cm. D.B.H. 5600 ft.
26776. Phytolacca. Mass collection. Along path 8-14 cm. from La Belleza. 2500-5000 ft.
25777. Phytolacca. Mass collection. Clearings, finca Buenos Aires" 14 km. SW. of La Belleza. Alt. 2500 ft.

September 22. Q, la Quitaz, near Otro Mundo, W. of Florian.

25778. Leguminosae. Petals white with pink midrib and light pink near midrib. Alt. 850 ft.

25779. Leguminosae. Same as #25778, fruit. (Labelled 25784)
25780. Cacao. Small tree 3 m. tall. Hillside, 1400 ft.
25781. Cinchona Henleana. Wooded ridge near Buenos Aires. 2500 ft. BARK

September 23. Roadside southwest from La Belleza to Otro Mundo, west of Florian.

25782. Cinchona officinalis. Tree 10 cm. D.B.H., 6 m. tall. SEEDS, BARK 2.8 TCA. Alt. 5600 ft.
25783. Lichen? On Cinchona officinalis #25782.
25784. Cinchona sp. About 500 ft. (#25770 also bears this number)

September 24. NW. of La Belleza. Alt. about 6000 ft.
25785. Rubus. Primocanes branching. On limestone outcrop.
25786. Juncus. Pastured hillside.
25787. Juncus. Pastured hillside.
25788. Ranunculus? Standing water in sink-hole.
25787. Koriopa? Standing water in sink-hole
25790. Cyperus. Standing water in sink-hole.
25791. Cinchona pubescens. Branch 8 cm. in diameter, on trunk 50 cm. D.B.H. About 1 km south of waterfall "La Humadora". BARK 6000 ft.
25792. Cinchona officinalis. Stump sprout 4 m. tall. 5 cm. thick. Residual tree in clearing near waterfall "La Humadora". Alt. 6000 ft. BARK.

25793. Cinchona officinalis . (same) SEEDS, BARK 4.0 TCA.

SANTANDER DEPARTMENT

September 25. East of La Belleza, on trail to Sucre.
25794. Typha. Small shallow pool. Alt. 7650 ft.
25795. Utricularia. Flowers yellow. Small shallow pool, alt. 7650 ft
25796. Callitriche. Small shallow pool. Alt. 7650 ft.
25797. Alga? Light green tufts on trunk of Cinchona pubescens,25789. Wooded hillside. 7500 ft.
25798. Cinchona pubescens. Sprout 15 cm. thick on stump 30 cm. thick. Wooded hillside. 7500 ft. SEEDS, BARK.
25799. Cinchona pubescens. Trunk 30 cm. D.B.H. Wooded hillside, 7500 ft. BARK.
25800. Hypericum. Flowers yellow; fruit red. Rock-cut, pathway about 6 km. E. of La Belleza. Alt. about 6500 ft.
25801. Phytolacca. Intermediate, flowers a little lighter than in form with short inflorescence. Roadside about 4 km. E. of La Belleza. Alt. about 6500 ft.
25802. Phytolacca. Mass collection. Roadside about 4 km. E. of La belleza. Alt. about 6500 ft.

September 26. East of La Belleza, on trail to Sucre.
25803. Capaveraceae. Shrub; juice orange. Alt. 7400 ft. About 6 km. E. of La Belleza.
25804. Orchidaceae. Flowers white. About 6 km. E. of La Belleza. Alt. 7400 ft.
25805. Lycopodium. Rock Bank, about 6 km. E. of La Belleza. 7100 ft.
25806. Cinchona pubescens? Leaves shining above, with red veins. Roadside thicket, about 6 km. E. of La belleza. Alt. about 7000 ft.

September 26. "Moravia", level valley east of La Belleza. 7000 ft.
25807. Callitriche. Pool in pasture; terrestrial form on mud.
25808. Callitriche. Pool in pasture; aquatic form in 20 cm. water.
25809. Callitriche. Pool in pasture; subaquatic form at water's edge.
25810. Mimulus. Prostrate; corolla yellow, palate hairy and spotted with light xxx brown. Muddy shore of stream.
25811. Equisetum. Muddy bank of stream.
25812. Cardamine? Muddy bank of stream and shallow water.
25813. Paspalum. Pasture.
25814. Juncus. Mass collection. Pasture.
25815. Flowers yellow. Among tree trunks at edge of stream.
25816. Fragaria. Achenes in pits about ½ the depth of the length of the achene. On hummocks in pastured swamp.
25817. Epilobium. Stem and old leaves red; sepals and ovaries red or green; petals white or pink on the same plant. Among grasses and sedges in pastured swamp.
25818. Juncus. Pastured swamp.
25819. Gramineae. Spikelets purple. On rotting log in pastured swamp.
25820. Eleocharis. On old log in pool.
25821. Hieracium. Flowers yellow. Cleared woods along path.

September 26. In stream entering sink-hole, about 1.5 km. E. of La Belleza. Alt about 6500 ft.
25822. Mimulus. Prostrate; corolla yellow, palate hairy and spotted with light brown.

SANTANDER DEPARTMENT

September 26. La Belleza; bark sample sumbitted by Miguel Sanchez, probably from same locality as #25782.
25825. Cinchona officinalis. BARK 3.0 TCA, 0 45.

September 27. La Belleza,
25824. Cinchona pubescens. Trunk about 20 cm. D.B.H. Alt. 6100 ft. Pasture near waterfall "La Hamadora." BARK.
25825. Cladonia. On old trunk, N.W. of La Belleza.
September 28. Road from La Belleza to Florian. Alt. about 6000 ft.
25826. Orchidaceae. Flower orange. On fence-post.

September 28. Roadsides E. of Florian.
25827. Malphigiaceae. Prostrate over slate-pile; keys red.
25828. Phytolacca. Intermediate in color, darker than type with long inflorescence and lighter than type with short,

CUNDINAMARCA DEPARTMENT

September 29. Villa Pinzon. Roadside. 8200 ft.
25829. Phytolacca. Flowers light purple; leaves not red.

September 29. Fallow field 38 km. N. of Bogota
25830. Polygonum. Mass collection

October 2. Between Soacha and El Colego, 35 km. W. of Bogota.
25840. Rubus. Stems ascending then arching, recurving to touch ground., 3-4 m. long. Clay bank.
25841. Rubus.
25842. Agrostis. Moss-covered rock-cut.
25843. Cardamine. Wet gully.
25844. Veronica. Flowers purple. Creeping on vertical wet mossy road cut.
25845. Equisetum. Clay and gravel roadside.
25846. Hydrocotyle. Creeping on vertical wet mossy rock cut.
25847. Eupatorium. Flowers purple; stems very viscid., Thicket, path to Salto de Tequendama.
25848. Marathrum foeniculaceum - determined by A. Dugand. Foliage bright green; flowers purple-red. On rocks in Salto de Tequendama. Type locality.
25849. Alga. Filaments dark olive-green, with swollen joints. In shallow water at brink of Salto de Tequendama.
25850. Phytolacca. Stems and petioles red. Mass collection. Path to Salto de Tequendama.

October 6. Cerro de Guadelupe, Bogota. 9500 ft.
25851. Cyperaceae. Roadside ditch.

CUNDINAMARCA DEPARTMENT

October 8. Cerro de Montserrate, Bogota

25852. Lycopodium. Under shrubs, paramo. 10000 ft.
25853. Chusquea. Steep shrubby hillside. 10000 ft.
25864. Aster? Stems shrubby, 1 m. tall; rays purple. 10000 ft.
25855. Lycopodium. Under shrubs, paramo. 10000 ft.
25856. Lycopodium. Under shrubs, paramo. 10000 ft.
25857. Lupinus. Stems creeping; petals purple-blue; standard light purple or white distally. 9500 ft.
25858. Gentianaceae? Corolla lobes light lilac, lined with dark lilac. Mountain crest. 10500 ft.
25859. Lycopodium. Among grass and shrubs, paramo, mountain crest. Alt. 10500 ft.
25860. Shrub 1 m. tall; corolla lobes 4, white, hairy at base within; stamens 4; style 1. Paramo, 10500 ft.
25861. Gramineae. Culms purple, in a dense tuft; spikelets nearly black. Dry mountain crest, 10500 ft.
25862. Scrophulariaceae. Whole plant viscid-glandular; calyx purple; corolla lemon-yellow. Among grass and shrubs, paramo, mountain crest. Alt. 10500 ft.
25863. Eucalyptus. Twigs and petioles red; fruit blue-glaucous. Mountain crest, 10500 ft.
25864. Scrophulariaceae? Corolla pale lilac and white. Among grass, paramo, mountain crest. 10500 ft.
25865. Umbelliferae. Among grass and shrubs. 10500 ft.
25866. Castilleja. Shrub 1.5 m. tall; bracts green
25867. Scrophulariaceae. Calyx dark red; corolla deep red; stamens yellow. Shrubby paramo. 10500 ft.
25868. Oxalis. Stems fleshy, sprawling and climbing among bases of shrubs. Shrubby paramo. 10500 ft.
25869. Oxalis. Stems fleshy, sprawling and climbing among bases of shrubs. Shrubby paramo. 10500 ft.
25870. Plantago. Descicated pathway back of church. 10500 ft.
25871. Plantgo. Descicated pathway back of church. 10500 ft.
25872. Orchidaceae. Corolla yellowish. Grassy paramo. 10500 ft.
25853. Hieracium. Flower yellow. Pathway, 10500 ft.
25874. Orchidaceae. Stems 1 m. long; flowers green, then lemon-yellow. Grassy paramo. 10500 ft.
25875. Compositae. Stems creeping on rocky cliff; flowers lavender. Alt. about 10000 ft.
25876. Lycopodium. Creeping, on shrub paramo. 10000 ft.
25877. Compositae. Flowers yellow; bracts purple-margined. Pastured foot-hills. Alt. about 8900 ft.
25878. Polygonum. Weed in cultivated land at foot of mountain. Flowers pink. Alt. about 8800 ft.
25879. Liliaceae. Mass collection. All flowers blue. Shrubby paramo. 10000 ft.
25880. Phytolacca. Mass collection. Flowers rose. Roadway along foot of mountain. Alt. about 9000 ft.

CUNDINAMARCA DEPARTMENT

25881. Polygonaceae? Main stem prostrate, branched erect. Cultivated land in foothills. Alt. about 8800 ft.
25882. Cyperaceae. Dry soil. About 9600 ft.
25883. Orchidaceae. Shrub paramo. About 10000 ft.
25884. Paspalum. Rachis and young spikeltes purple. Rocks, paramo. Alt. 10000 ft.
25885. Gramineae. Rocky paramo. 10000 ft.
25886. Lycopodium. Shrubby paramo. 10000 ft.

October 10. Sesquile.
25887. Rumex. Damp ground.
25888. Polygonum. Damp ground.
25889. Polygonum. Damp ground. One clone.

October 10. Choconta
25890. Lupinus. Low prairie between highway and railroad.
25891. Typha. Leaves exceed spikes. Wet ground between highway and railroad.

BOYACA DEPARTMENT

October 10. Monzano, south of Tunja.
25892. Datura. Semi-shrub, 2.5 m. tall. Corolla red distally, yellow proximally. Toadside.

October 10. Tunja.
25893. Leguminosae. Shrub 1.5 m. tall; flowers yellow. Roadsides and eroded fields.

October 11. Salt flats, Paipa.
25894. Juncus.
25895. Scirpus,
25896. Scirpus.
25897. Phytolacca. Mass collection.
25898. Phytolacca. Stem red.
25899. Spergularia?
25900. Juncus.

October 11. Cerinza
25901. Polygonum. Mass collection. Corn field.

October 11. Shrub paramo north of Belan. Alt. 10100 ft.
25902. Lycopodium. Roadside bank.
25903. Lycopodium. Roadside bank.
25904. Ranunculus. Roadside ditch.
25905. Ranunculus. Roadside ditch.
25906. Sisyrinchium. Flowers yellow. Roadside ditch.
25907. Epilobium. Calyx deep pink; corolla pale. Roadside ditch.

BOYACA DEPARTMENT

October 11. Shrub paramo north of Belen
25908. Eupatorium, Stems shrubby; young branches slightly glutinous; flowers purple. Roadside, 10200 ft.
25909. Vaccinium? Forming mats. 102000 ft.

October 11. Pool on paramo north of Belen. Alt. 10200 ft.
25910. Tillaea.
25911. Ranunculus. Blades floating.
25912. Elelcharis?

October 11. Sandy soil near Rio Susacon, SW. of Susacon
25913. Compositae. Flowe s white.

SANTANDER DEPARTMENT

October 12. Alto del Almorzadero, open paramo, north of Cerrito. Alt. 12000 ft.
25915. Cyperaceae? Forming dense mats; fruits stick in flesh.
25915. Lycopodium. In dense mats 50 cm. in diameter.
25916. Callitriche. In 20 cm. of water in pool.
25917. Tillaea. Bright green patches in 15 cm. water of pool.
25918. Callitriche. In about 30 cm. water in pool.
25919. Castilleja. Bracts green, with distal half scarlet; corolla green, orange-tipped. Saturated sod.
25920. Gentiana. Corolla lobes pale lilac with 5-7 dark veins; anthers brown.
25921. Lycopodium. Leaves on uproght stem mostly orange, those on cfeeping stems green with orange tips.

October 12. Paramo de Jurado, north of Cerrito. Alt. 10600 ft.
25922. Juncus. Roadside ditch.
25923. Rubus. Among rocks and shrubs.
25924. Lycopodium. Among rocks and shrubs.
25925. Juncus. In saturated soil.
25926. Juncus. In saturated soil.
25927. Juncus. In saturated soil.
25928. Rynchospora. In saturated soil.
25929. Eriocaulaceae. In saturated soil. Forming a dense mat 30 cm. in diameter.

NORTE DE SANTANDER DEPARTMENT

October 13. Mountains S. of Rio Chitaga, E. of Bata. Sarare Road.
25930. Melastomaceae. Flowers pink. Alt. 6100 ft.
25931. Pteridium. Alt. 6100 ft.
25932. Callitriche. Mats on damp ground near hut. Alt. 6500 ft.

October 14. Rio Chitaga, Sarare Road near Labeteca. Alt. 4200 ft.
25933. Marathrum (det. Dugand). Rocks in swift water.
25934. Marathrum. On rocks in swift water.
25935. Marathrum. On rocks in swift water.
25936. Tillandsia. On trees overhanging the river.

October 17. Cucuta. Low pasture along Rio Pamplonita. Alt. 700 ft.
25937. Rubiaceae. Shrub 1 m. tall; flowers white,
25938. Cyperus.
25939. Leguminosae. Tree; ~~xxixxxx~~ filaments white toward base, red toward apex.
25940. Equisetum. Stems 2 m. tall. Roadside ditch.

October 18. Road-cut in shale, Pamplona. Alt 7500 ft.
25941. Galium.

October 19. Paramo SE. of Pamplona, junction of Sarare Road
25942. Juncus bufonius. Roadside ditch.
25943. Taraxacum. Mass collection. Roadside.
25944. Santalaceae. Stem and calyx red; berry waxy white.
25945. Orchidaceae.
25946. Juncus.
25947. Xyris. Flowers yellow.
25948. Ranunculus. Flowers yellow.
25949. Liliaceae. Flowere white, orange with age.
25950. Eryngium.

October 20. Wooded hillside, Sarare Road E. of Bata. Km. 64. 6500 ft.
25951. Cinchona officinalis. Tree 5 cm. D.B.H. BARK. 4.7 TCA, 1.8 QS
25952. Phytolacca. Mass collection.

October 23. Estate of Don Juan Echeverria, E. of Toledo. 8500 ft.
25953. Cyperaceae. Clearing.
25954. Eleocharis. Clearing. (-55 C. pub. BARK 2.2 TCA
25955. Cinchona pubescens. No herbarium specimen; composite BARK sample from 11 trees. 3.2 TCA
25957. Phytolacca. Mass collection. Clearing. Flowers & stem deep purple.
25958. Epilobium. Clearing.
25959. Birds nest made of lichens.

October 24. Estate of Don Juan Echeverria, E. of ~~Bata.~~ Toledo. Patch of forest. 6700 ft.
25960. Cinchona officinalis. Tree 14 cm. D.B.H.; corolla chocolate-purple. BARK. 4.0 TCA, 1.3 QS
25961. Cinchona officinalis. Tree 12 cm. BARK. 4.5 TCA, 1.3 QS
25962. Lichen? On Cinchona officinalis, # 25961.
25963. Cinchona officinalis. Tree 12 cm. D.B.H., previously stripped about 1 m. on one side. BARK. 4.0 TCA, 1.1 QS

NORTE DE SANTANDER DEPARTMENT

October 24. Estate of Don Juan Echeverria.

25964. Mimulus. Corolla yellow, the lip pubescent and spotted with orange. Wet soggy turf. 7600 ft.
25965. Azolla. Rock slide along stream. 7000 ft.
25966. Lolium. Clearing. 8500 ft.
Habenaria. Flowers yellow-green. Pasture. About 8000 ft.

October 25. Estate of Don Juan Echeverria, E, of Toledo

25968. Hypericum. Flowers dark yellow. Damp pasture. 6900 ft.
25969. Ranunculus. Flowers yellow. Damp pasture. 6900 ft.
25970. Cinchona officinalis. Trunk 12 cm. D.B.H. Woods. 6900 ft. 5.7 TCA, 2.0 QS
25971. Cinchona officinalis. Trunk 14 cm. D.B.H. Woods. 6900 ft. 6.2 TCA, 2.7 QS.
25972. Cinchona officinalis. Trunk 12 cm. D.B.H. Woods. 6900 ft. 3.9 TCA, 0.7 QS
25973. Cinchona officinalis. Corolla dark brownish-purple. Lone tree on steep molasses-grass pasture. 6800 ft.
25974. Echinochloa. Springy places in pasture. 6400 ft.

October 27. Roadsides, Toledo. Alt. 5100 ft.

25975. Eleocharis. Wet clay bank.
25976. Eupatoriae. Flowers blue, white in age.
25977. Tagetes. Foliage heavy-scented; flowers orange. Very abundant along roadsides in this region.
25978. Plantago. Clay bank.
25979. Chlorideae.

October 28. Finca Tapata, near Rio Culaga 20 km. N. of Toledo.

25980. Euphorbia. Red portion of uppermost leaves margined with black. Edge of pathway, Agua Caliente. 9600 ft.

October 28. Finca Tapata, near Rio Culaga 20 km. N. of Toledo

25981. Cinchona officinalis. Wooded hillside, Agua Caliente; a few small trees only. 7400 ft.
25982. Phytolacca. Mass collection along 200 m. of pathway, Agua caliente. 7400 ft.
25983. Melina. Along path protected from grazing by fense. 6900 ft.
25984. Lycopodium. Rocky pathway, Agua Caliente. 7600 ft.

October 28. La Rancheria, 23 km. N. of Toledo up Rio Culaga

25985. Radicula Nasturtium-aquaticum. In mud near spring.
25986. Radicula Nasturtium-aquaticum. Edge of water.
25987. Radicula Nasturtium-aquaticum. In water of spring.
25988. Phytolacca. Mass collection. Clearing.

NORTE DE SANTANDER DEPARTMENT

October 30. Valley of Rio Culaga N. of Toledo
25989. Phytolacca. Mass collection. Roadside 2.5-4 km. N. of Toledo
25990. Orchidaceae. Inflorescence viscid. Thicket about 12 km. N. of Toledo.
25991. Hypericum. Along pathway about 12 km. N. of Toledo.

October 20. Near Labateca.
25992. Malphigiaceae. Vine clambering over bushes near Rio Chitaga.

SANTANDER DEPARTMENT

October 31. Alto del Almorzado, north of Cerrito. 12500 ft.
25993. Potamogeton. In small pool.
25994. Eleocharis. In small pool.
25995. Juncus. In small pool.
25996. Carex. In small pool.
25997. Valerianaceae.
25998. Ranunculus. Flowers yellow. In small pond near the road.
25999 Juncus. In small pond near the road.

October 31. Capitanejo. Alt. 3950 ft.
26000. Cynodon. Dry roadside near mouth of Rio Servita.

November 5. Between Susucon & Capitanejo. Alt. 4200 ft.
26001. Gramineae. Culms in tufts, 1.5 m. tall. Arid hillside.

NORTE DE SANTANDER DEPARTMENT

November 9. Near Quebrada Cueva, 15 km. N. of Cucutilla in valley of Rio Cucutilla. Alt. 7000 ft.
26002. Orchidaceae. Flowers purple. On boulders along stream.
26003. Orchidaceae. Perianth brown striped with purple. On boulders along stream.
26004. Phytolacca. Mass collection. Flowers bright purple. River gravels.

November 10. Steep wooded mountainside near Q. Cueva, 15. km. N. of Cucutilla in valley of Rio Cucutilla. Alt. 8200 ft.
26005. Cinchona officinalis. Tree 7 cm. D.B.H. Leaves not red. BARK.
26006. Cinchona officinalis. Tree 10 cm. D.B.H. Leaves not red. BARK.
26007. Cinchona officinalis. Leaves not red. BARK.
26008. Cinchona officinalis. Tree 14 cm. D.B.H. Leaves not red. BARK.
26009. Cinchona officinalis. Trunk 17 cm. D.B.H. Leaves not red. BARK.
26010. Gramineae. Wet shaded pathway. Alt. 7000 ft.
26011. Lichens. On tree branches in swamp along stream. Alt. 7000 ft

November 12. "Capire", headwaters of Quebrada Carillo, 10 km. E. of Cucutilla.
26012. Cinchona officinalis. Tree 6 cm. D.B.H. Leaves not red. Alt. 7800 ft. BARK.
26013. Cinchona officinalis. Tree 5 cm. D.B.H. Leaves not red. Alt. 8400 ft. BARK.

NORTE DE SANTANDER DEPARTMENT

26014. Cinchona officinalis. Tree 8 cm. D.B.H. No red leaves. Alt. 8100 ft. BARK
26015. Taraxacum. Mass collections. Pasture. 7500 ft.
26016. Lycopodium. 8100 ft.
26017. Rubiaceae. Leaves purple-red beneath. Alt. about 7000 ft.
26018. Rubiaceae. Youngbtree about 3 m. tall. About 7000 ft.
26019. Rubiaceae. Young tree about 3 m. tall. About 7000 ft.

November 14. Valley of Quebrada Chicagua, north of Arboledas.
26020. Andropogon. Burned mountainside. Alt. 6800 ft.
26021. Orchidaceae. Lip yellow, flushed with orange-red onupper surface; both sides pf corolla lobes yellow with orange-yellow spots; calyx-lobes yellow with orange-yellow spots inside, red-orange outside, revolute. Rocky ridge. Alt. 7600 ft.

November 15. Woods about Quebrada Cueva, north of Arboledas. 8000 ft.
26022. Cinchona officinalis. Tree 20 cm. D.B.H.; leaves not red. BARK
26023. Cinchona officinalis. Tree 8 cm. D.B.H.; leaves not red. BARK
26024. Cinchona officinalis. Tree 3 cm. D.B.H.; leaves not red. BARK

November 18. Between Salazar and Santiago
26025. Nymphaea. Petals white with green veins. In small pool.

November 19. North of Lourdes, between Gramalote & Sardinata.
26026. Eriocaulaceae. Wet roadside bank. Alt. about 4000 ft.

November 21. "Las Mesas" in valley of Quebrada Playona, between Gramalote and Sardinatas.
26027. Cinchona officinalis. Trunk 15 cm. D.B.H., stripped on one side for 1.5 m. Alt. 6000 ft. BARK
26028. Cinchona officinalis. Trunk 12 cm. D.B.H.; corolla tube red, lobes nearly black. Alt. 6200 ft. BARK
26029. Cinchona officinalis. Trunk 8 cm. D.B.H. 6200 ft. BARK
26030. Cinchona officinalis. Trunk 13 cm. D.B.H. Alt. 6000 ft. BARK

November 24. Between Salazar and Santiago.
26034. Nymphaea. In small pool

November 27. Mountains above "Villa Marina," between Pamplona and Bochalema. Alt. 8000 ft.
26031. Cinchona officinalis. Branch 14 cm., from trunk 25 cm. D.B.H. BARK
26032. Cinchona officinalis. Trunk 12 cm. D.B.H. BARK
26033. Cinchona officinalis. Tree 7 cm. D.B.H., 5 m. tall. BARK
26034. (see after 26030)
26035. Phytolacca. Mass collection along trail. Alt. about 8000 ft.
26036. Phytolacca. Mass collection along trail. Alt. about 6000 ft.

NORTE DE SANTANDER DEPARTMENT

November 29. 6 miles north of Pamplona, junction of Sarare Road

26037. Juncus bufonius. Mass collection. Roadside ditch
26038. Phytolacca. Mass collection. Roadside.
26039. Alnus. Mass collection. Small trees bordering road.

November 30. Cordillera de Rio Colorado, km. 55 on Sarare Road, east of Bata

26040. Cinchona officinalis. Tree 5 cm. D.B.H. 5600 ft. BARK
26041. Cinchona officinalis. Trunk 14 cm. D.B.H., stripped for 2 m. BARK
26042. Cinchona officinalis. Trunk 8 cm. D.B.H. 5700 ft. BARK
26043. Cinchona officinalis. Trunk 16 cm. D.B.H. 5600 ft. BARK
26044. Rubiaceae. 5600 ft.
26045. Rubiaceae. 5600 ft.

All the names in this list are provisional only, and none of them are to be regarded as authentic identifications.

BOTANICAL COLLECTIONS OF N. C. FASSETT IN COLOMBIA, 1944.

26001 - 26096 are collections in Bogota, in Santander Dept. and Norte de Santander Dept.; the data are on the sheets.

SANTANDER DEPARTMENT

April 22. Mule path to Bolivar, 10 km. N.W. of Velez.
25095. Cinchona pubescens. Tree 5 cm. D.B.H., 4 m. tall, in ravine 3 km. N.E. of Bolivar. BARK.
25096. do. Mass collection.
25097. Gramineae. Rocky side of path.
25098. Andropogon. Rocky side of path.
25099. do. Rocky side of path.
25100. Phytolacca. Mass collection along about 1 km. of path.

April 23. ½ km. S. of Berveo, 15 km. N.W. of Velez. 7000 ft. alt.
25001. Cinchona pubescens. Mass collection.
25002. Cinchona pubescens. Tree 20 cm. D.B.H., 12 m. tall, scattered on hillside. BARK.
25003. Cinchona pubescens. Tree 30 cm. D.B.H., 12 m. tall. BARK.
25104. Cinchona officinalis. Tree 5 cm. D.B.H., 2.5 m. tall, on lightly wooded hillside. BARK 3.7 TCA.
25105. Cinchona officinalis. Tree 5 cm. D.B.H., 2 m. tall. BARK 3.4 TCA.
25106. Cinchona officinalis. Mass collection.
25107. Aroid. Moist place in woods.
25108. Cinchona of icinalis. Stump sprouts 4cm. tall.
25109. Cinchona officinalis. Saplings 1.5 m. tall.
25110. Rubiaceae. "Quinone" Wooded hillside.
25111. Rubiaceae? Wooded hillside.

April 23. Berveo, along mule path toward Bolivar. 7000 ft. alt.
25112. Taraxacum. Mass collection.
25113. Phytolacca. Mass collection.
25114. Rorippa. Moist places.
25115. Gramineae.
25116. Parasite on 25115.
25117. Lycolodium. Moist bank.

April 24. Olla de Banama, 15 km. W. of Bolivar.
25118. Cinchona officinalis. Tree 10 m. tall. Densely wooded hillside. 6800 ft. alt., BARK 5.9 TCA.
25119. Cinchona officinalis. Tree 1o cm. D.B.H., 6 m. tall. Densely wooded hillside. 6500 ft. alt. BARK 4.2 TCA.
25120. Rubiaceae. "Quinone" Tree 20 cm. D.B.H., 6 m. tall. Densely wooded hillside. 6500 ft. Alt. BARK.
25120. Tree. Densely wooded hillside. 6900 ft..alt.
25121. Rubiaceae. Densely wooded hillside. 6900 ft. alt.
25122. Agrostis. Hilltop 1 km. W. of Bolivar. Alt. 9000 ft.
25123. Rubiaceae. "Quinone" Tree 20.cm. D.B.H., 6 m. tall. Densely wooded hillside. Alt.,6500 ft. BARK.
25124. Sanicula. Densely wooded hillside. Alt. 6900 ft.
25125. Viola. " " " " " "
25126. Melastomaceae. " " " " " "
25127. Rubiaceae. " " " " " "
25128. Phytolacca. Mass collection along path.
25129. Cinchona pubescens. Londres, 10 km. W. of Bolivar. Alt. 9000 ft. BARK.

25130. Orchidaceae. Fl. orange. Path 1 km. W. of Bolivar. Alt. 9000 ft.
25131. Orchidaceae. " " " " " " " " " " " "

SANTANDER DEPARTMENT

April 26. El Espejo, near La Paz, NE of Velez. Alt. 7300 ft.
25132. Cinchona officinalis. Stump sprouts 3 cm. thick, 2 m. tall, from trees cut 6 months ago. BARK 0.8 TCA.
25133. Cinchona officinalis. Similar sprouts. BARK 2.0 TCA.
25134. Rubiaceae. "Quinone" of "Quina amarilla" Tree 15 cm. D.B.H., 6 m. tall. BARK, NMTT
25135. Rubiaceae. "Quinone"
25136. Tree (said to be mistaken for Quina)
25137. Rubiaceae? Deep woods.
25138. Rubiaceae? Recently cleared woods.
25139. Rubiaceae? Recently cleared woods.
25130. Phytolacca. Clearing.
25141. Nasturtium. Stream in pastured hillside.
25142. Juncus. Mass collection on pastured hillside.

April 26. Thickets near Chipata, NE. of Velez.
25143. Oxalis.

April 27. La Sabaneta, E. of Velez. Alt. 7200 ft.
25144. Polygonum. Wet spots on pastured hillside.
25145. Begonia. Fl..scarlet. Among down timber in cleared woods.
25146. Polygonum. Mass collection.
25147. Phytolacca. Mass collection. Among down timber in cleared woods.
25148. Eleocharis . Along a little stream, pastured hillside.
25149. Polygonum. Wet spots on pastured hillside.
25150. Juncus. Wet spots on pastured hillside.

April 27. Mule path, Puente Grande, NE. of Velez.
25151. Phytolacca/

April 27. Trail from La Paz to Velez.
25152. Equisetum. Stems 2 m. tall.
25153. Polypodium. Rocky bank.

May 4. Region about La Paz, NE. of Velez.
25156. Cassia. Pathway near Chipata. Fl. yellow.
25157. Monina. Fl. blue & yellow. Pathway near Chipata.

May 5. Region about La Paz, NE. of Velez.
25158. Cinchona sp. Tree 5 cm. D.B.H., 4 m. tall. Dense thicket, Agua Blanca. BARK Grahe negative. Alt. 6250 ft.
25159. Gramineae. Pathway in thicket, Agua Blanca. Alt. 6250 ft.
25160. Cinchona sp. Mass collection. Dense thicket, Agua Blanca.
25161. Rubiaceae. Pathway, Agua Blanca. Alt. 6250 ft.
25162. Rubiaceae. Pathway, Agua Blanca. Alt. 6250 ft.
25163. Cinchona sp. Thicket, Canta Ranas. Trunk 8 cm. D.B.H., 8 m. tall. BARK Grahe negative.
25164. Cinchona sp. Thicket, Canta Ranas. Tree 6 cm. D.B.H., 5 m. tall. BARK Grahe negative.
25165. Cinchona sp. Densely wooded ridge, Mico Cargado. Alt. 6450.
25166. Goodyeara. " " " " " " "
25167. Cinchona sp. Corolla light yellowish-green in bud, white in flower. Densely wooded ridge, Mico Cargado. Alt. 6450.
25168. Cinchona sp. Flowering branch. Densely wooded ridge, Mico Cargado.
25169. Cinchona sp. Sterile shoot. " " " " "
25170. Cinchona sp. Densely wooded ridge. Mico Cargado. Alt. 6450. BARK Grahe negative.

SANTANDER DEPARTMENT

May 5. Region about La Paz, NE. of Velez (continued)

25171. Compositae. Woody, 3 m. tall. Thicket beside path, Canta Ranas.
25172. Rubiaceae. "Quinone" Woods, Canta Ranas. Alt. 6400 ft.
25173. Cinchona sp. Corolla fleshy, lobes and upper part of tube pale greenish-yellow peach-color without. Wooded ridge, Canta Ranas. Alt. 6400 ft. BARK Grahe negative.
25174. Cinchona sp. Corolla fleshy, lobes and upper part of tube peach-color without. Wooded ridge, Canta Ranas. Alt. 6400 ft.
25175. Cinchona sp. Corolla floshy, lobes and upper part of tube pale greenish-yellow without. Wooded ridge, Canta Ranas. Alt. 6400 ft.
25176. Juncus. Pastured hillside, Canta Ranas. Alt. 6400 ftl
25177. Malvaceae. Coarse herb 2 m. tall; corolla and filament tube yellow, anthers cream or yellow, stigmas scarlet. Moist pasture, Canta Ranas. Alt. 6300 ft.
25178. Cinchona pubescens. Stump sprouts; only tree seen in region. Pasture, Canta Ranas. Alt. 6300 ft.
25179. Cinchona officinalis. Seedling or stump sprout, 1 m. tall; Red on stem, older stipules, midrib of young stipules, petioles, midribs above, and leaves below. Edge of woods, Canta Ranas, Alt. 6400 ft.
25180. Monina. Buds green or dark blue; flowers blue with yellow keel; fruits scarlet. Canta Ranas. Alt. 6400 ft.
25181. Phytolacca. Mass collection, path from Canta Ranas to Agua Blanca.

May 6. La Paz, NE. east of Velez. Alt. 6300 ft.
25182. Taraxacum. Mass collection. Street in town.
25183. Cinchona pubescens. Tree 30 cm. D.B.H., overhanging stream in ravine ½ km. N.E. Corolla tube scarlet without, and within except for ciliate margin.
25184. Pteridium. Trail N E. Only one division lower dividion of frond collected.
25185. Citrus. Cultivated, hotel.
25186. Daucus. Pathway up ravine ½ km. N.E.
25187. Cinchona pubescens. Stump sprout. Ravine ½ k.. N.E.
25188. Rubus (Eubatus) Pathway in pastured ravine.
25189. Araceae. Wet wooded bank near stream. Spathe usually light pink, white of some clones.
25190. Cyclanthaceae. Edge of stream, partly in water.
25191. Melastomaceae. Tree, ½ km. northof town.
25192. Andropogon. Clay soil along trail.
25193. Piperaceae.

May 7. West of La Paz on trail to Recreo. NE. East of Velez.
25194. Ladenbergia. Tree 8 m. tall. 1.5 km. W. of La Paz. Alt. 6800 ft. BARK, NMTT.
25195. Cinchona sp. 1 km. W. of La Paz.
25196. Cinchona sp. Trail between La Paz and Recreo. Alt. about 5000 ft.
25197. Usnea. "Barba de palo" On trees. Alt. about 4500 ft.
25198. Cephaelis. About 6 km. W. of La Paz.
25199. Phytolacca. 5 km. W. of La Paz.
25200. Cinchona officinalis. Stump sprout. 1 km. W. of La Paz.

SANTANDER DEPARTMENT

May 8. Cerro de Quinal, Recreo. Alt. 3600 ft. N. of Velez.
25201. Cinchona Henleana. Tree 5 m. tall, 8 cm. D.B,H. BARK.
25202. Cinchona Henleana. Single sterile stem in woods, 3 m. tall.
25203. Rubiaceae.
25204. Remijia pedunculata. BARK 2.5 TCA.
25205. Remijia pedunculata. Tree with insect galls. BARK 3.3 TCA,2.9 QS .
25206. Remijua pedunculata. Mass collection.
25207. Remijia pedunculata. Tree with insect galls. BARK, NMTT 1.9 TCA.
25208. Cinchona Henleana. Corolla white, with light greenish-yellow tube. BARK, NMTT
25209. Cinchona Henleana. Corolla white, with light greenish-yellow tube. BARK, NMTT.
25210. Palmae. Leaves from a small tree, fruit from a tall one.
25211. Cinchona Henleana. Mass collection.
25212. Eryngium. In garden.

May 9. Between Recreo and Mira Buenos, about 25 km. N.E. of Velez.
25213. Cinchona Henleana. Alt. 2800 ft. BARK, NMTT.
25214-16. Cinchona Henleana. Sterile tips of young trees.
25217. Gramineae. Grown in clearings for horse feed,
25218. Phytolacca. Clearing east of Quebrada la Negra. Only one seen.
25219. Warzewiczia. Recreo.

May 10. Between Mira Buenos and Jordan, about 50 km. N. of Velez.
25220. Cinchona Henleana. Woods west of Rio Quirata. Alt. 2600 ft. BARK.
25221. ? Small little-branched tree, 5 m. tall.
25222. Pasoqueria. Corolla white. East side of ridge between Rio Quirata and Jordan. Alt. 3300 ft. BARK, NMTT.
25223. Cinchona Henleana. Summit of ridge between Rio Quirata and Jordan. Alt. 3800 ft. BARK, NMTT.
25224. Melinis. Mira Buenos. Common.

May 13. Velez.
25225. Taraxacum. Mass collection, city streets.

May 14. Jordan, 50 km. N. of Velez. With H. St. John.
25226. Ladenbergia. Tree 10 m. tall. 30 cm. D.B.H.; leaves dark green with veins reddish beneath. Forest remnant, alt. 3100 ft.
25227. Cinchona Henleana. Tree 8 m. tall, 20 cm. D.B.H.; leaves dark shining green; corolla white. Temperate forest, alt. 2800 ft. BARK.
25228. Remijia pedunculate. Tree 7 m. tall, 10 cm. D.B.H.; leaves dull green. Patch of temperate forest, alt. 2800 ft. BARK.
25229. Remijia pedunculata. Mass collection.
25230. Ladenbergia. Tree 15 m. tall, 30 cm. D.B.H.; leaves shining green. Patch of temperate forest, alt. 2600 ft.
25231. Ladenbergia. "Brazil" Tree 12 m. tall, 30 cm. D.B.H.; leaves shining above, lighter beneath. Temperate forest, alt. 2600 ft. BARK
25232. Miliaceae. Tree 15 m. tall, 30 cm. D.B.H.; leaves crowded and plume-like on branch; calyx pink; anthers yellow. Forest by stream, alt. 2700 ft.

SANTANDER DEPARTMENT

May 14. Jordan, 50 km. N. of Velez. With H. St. John. (continued)
25233. Rubiaceae. Tree 8 m. tall, 10 cm. D.B.H.; leaves above dark shining, below pale green; calyx pink; corolla blue;.fruit dry. Temperate forest, 2700 ft.
25234. Phytolacca. Mass collection. Sprawling herbs 1-2 m. tall. Several km. of trail and clearings, La Venezia.
25235. Rubiaceae. Shrib 1.5 m. tall; leaves above dark shining green, below green; inflorescence yellowish green. Temperate forest, alt. 2600 ft.

May 15. Jordan to La Soledad, 50 km. N. of Velez. With H. St.John.
25236. Remijia pedunculata. Tree 5 m. tall, 5 cm. D.B.H.; flowers white; bark peels hard. El Peligro, 4 km. N.E. of Jordan. Patch of temperate forest, alt. 3200 ft. BARK.
25237. Remijia pedunculata. Sucker shoots.
25238. Remijia pedunculata. Jolandas, 6 km. N.E. of Jordan. Alt. 3300 ft.
25239. Cephaelis. Shrub 1.5 m. tall; bracts rose magenta.
25240. Phytolacca. Mass collection. La Soledad, 20 km. N.E. of Jordan; none seen en route.

May 16. La Soledad to La Putana, 20 km. N.E. of Jordan, 70 km. N.E. of Velez. With H. St.John.
25241. Cyperaceae. Erect 2 m. then sprawling on bushes. Wet tropical forest, 3200 ft.
25242. Carica. "Papaya de monte" 3 m. tall; fruit said to be full grown size but green, yellow when ripe, edible. Moist tropical jungle, alt. 3200 ft.
25243. Cinchona Henleana. Tree 10 m. tall, 10 cm. D.B.H. Common in moist tropical jungle, La Putana, alt. 3200 ft.
25244. Rubiaceae. "Granizo" Shrub 1.5 m. tall; flowers white. Wet tropical forest. alt. 3200 ft.
25245. Cinchona Henleana. Mass collection. La Putana.

May 17. 10 km. N.E. of Jordan, 60 km. N. of Velez. With H. St.John.
25246. Rubiaceae. Corolla orange; calyx light green and fleshy. Rocky bank (of Rio de la Vuida?).

May 18. Jordan, 50 km. N. of Velez.
25247. Oxalis. Weed in window box.
25248. Sida. Roadside weed.
25249. Sida. Roadside weed. Flowers yellow.
25250. Polygonum. Roadside weed.
25253. Chlorideae. Roadside weed.

SANTANDER DEPARTMENT

May 21. Jordan, 50 km. N. of Velez.
25251. Joosia. Tree 6 m. tall, 5 cm. D.B.H.; stipules standing at almost 90 degrees as they age; corolla 1.5 cm. wide, white, with lobes bifid and irregular-margined. Steep heavily wooded slopes, Quebrade de Pompeia, alt. 2600 ft. BARK.
25252. Cinchona sp. San Jeronimo, alt. 2600 ft. BARK.
25253. (see after 25250)
25254. Ladenbergia? Corolla white, with strong odor of Jasmine.
25255. Joosia.
25256. Joosia. Sprouts.
25257. Calycophyllum? Steep heavily wooded slope, Quebrada de Pompeia.
25258. Calycophyllum? Fruiting inflorescence fallen from tree.
25259. Polypodiaceae. Rotting log near Quebrada de Pompeia.
25260. Polypodiaceae. " " " " " "

May 22. Jordan, 50 km. N. of Jordan.
25261. Joosia. Stipules spreading at almost 90 degrees in age. About 2 km. E. of Jordan on path to Mira Buenos.
25262. Gramineae. Overhanging trial, 4 m. tall, much branched. About 1 km. N.W. of Mira Buenos.

May 23. Mirasol, E. of Jordan.
25263. Remijia pedunculata. Densely wooded hillside, 2700 ft. Fruits on tree felled 6 months ago.
25264. Remijia pedunculata. Tree 5 m. tall, 5 cm. D.B.H. BARK.
25265. Remijia pedunculata. Tree 12 m. tall, 20 cm. D.B.H., lower 3 m. stripped 6 mo. ago; still living, with fruits. BARK.
25266. Remijia pedunculata. Tree 10 m. tall, 10 cm. D.B.H. BARK.
25267. Remijia pedunculata. Tree 6 m. tall. 8 cm. D.B.H. BARK.
25268. Malvaceae. "Abrago" Common weed in pastures and along pathways, the fruits commonly sticking to animals and to clothes. Flowers very pale pink.
25269. Bidens. "Cadillo" Weed in garden.
25270. Cyperus. "Tote" Weed in garden.
25271. Paspalum. "Grama blanca" Common along pathways.
25272. Cyperus. Weed in garden.
~~25273. Xyridaceae. Common in pastures, moist ground, etc.~~
25273. Chlorideae. Common in pastures, moist ground, etc.
25274. Erechtites. Weed in garden.
25275. Erechtites. Weed in garden.
25276. Cyperus. Weed in garden.

May 24. Wet woods along Rio Quirata, near Mirasol, E. of Jordan.
25277. Ipecacuanha?
25278. Fungus. On rotting wood.
25279. Xylaria. Rotting wood.
25280. Clavaria? Rotting wood and leaves on the ground.

May 25. About 1 km. E. of Jordan on path to Mira Buenos.
25281. Shrub.

SANTANDER DEPARTMENT

May 26. San Jeronimo, ½ km. N.E. of Jordan, 50 km. N. of Velez.
25282. Cinchona sp. Tree 5 m. tall, 5 cm. D.B.H. BARK.
25283. Cinchona sp. Wooded ridge.
25284. Cinchona sp. One sprout, in sections.
25285. Cinchona sp. Mass collections.
25286. Ladenbergia? (Same as #25254) BARK.
25287. Ladenbergia? Young twigs.

May 27. Jordan, 50 km. N. of Velez.
25288. Rubiaceae? Tree 20 cm. D.B.H.; calyx green; corolla white. Dense woods, steep canyon W. of road. BARK.
25289. Rubiaceae? Small tree; corolla yellow. Steep canyon W. of road.
25290. Heteranthera. Flowers white. Roadside ditch.
25291. Passiflora. Sepals light green with one border white; petals white; outer corona purple and yellow, inner light green; filaments deep purple; anthers yellow outside, green and pueple-margined inside. Hanging down rock cliff.
25292. Basidiolichen? Rock cliff, road cut.
25293. Eleocharis. Tendency toward vivipary, and with bract like Scirpus debilis. Roadside ditch.

BOYACE DEPARTMENT

June 6. 5. km. W.S.W. of Arcabuco, valley Rio Pomera
25294. Orthosanthus. Cliff. Flowe s blue.
25295. Lichen. Rock cliff.
25296. Lichen. Rock cliff.
25297. Fragaria. Roadside weed.
25298. Orchidaceae. Petals dull-yellow-brown, with dark red veins; column dark red. Lightly wooded rock cliff.

CUNDINAMARCA DEPARTMENT

June 6. N.E. of Gachancipa
25299. Raphanus. Petals purple, dark-veined. Very abundent and coloring acres of field.
25300. Polygonum. Weed in field.

SANTANDER DEPARTMENT

June 7. Barbosa
25301. Fragaria. Petals yellow. In patio, Gales Hotel.
25302. Brassica. Roadside, road to Velez.

June 8. 12 km. N. of Velez.
25303. Cardamine. Wet talus.

June 9. La Flores, 14 km. N. of Landazuri, 85 km. N. of Velez. 2000 ft.
25304. Digitaria. Roadway.
25305. Euphorbia. Roadside.
25306. Gramineae. Driveway.
25307. Portulaca. Driveway.
25308. Jasmine.

SANTANDER DEPARTMENT

June 9. Steep wooded hillside, La Flores, 2050 ft., 85 km. N. ofVelez.
25309. Rubiaceae. BARK turns red inside
25310. Rubiaceae. BARK turns red slightly or not at all.
25311. Rubiaceae. (no herbarium specimen) BARK turns pale peach-color, Grahe negative.
25312. Rubiaceae. (no herbarium specimen) BARK remains nearly white, Grahe negative.
25313. Rubiaceae. Mass collection.

June 10. Cimitarra, 100 km. N. of Velez
25314. Remijia pedunculata. Tree 20 cm. D.B.H., stripped 1.5 m. 6 mo. ago. Flowers white. Wooded ridge, alt. 1350 ft. BARK 2.2 TCA.
25315. Remijia pedunculata. Mass collection. About ½ km. of path along wooded ridge, alt. 1350 ft.
25316. Remijia pedunculata. Tree 15 cm. D.B.H., stripped 1 m. 6 mo. ago. BARK 2.2 TCA. 1350 ft.
25317. Ladenbergia? Trunk 40 cm. D.B.H. BARK Grahe Negative. 1350 ft.
25318. Remijia pedunculata. 5 cm. D.B.H. BARK Grahe negative. 1350 ft.
25319 Remijia or Ladenbergia? Seedling. 1350 ft.
25320. Cyperus. Cleared hillside with Molasses Grass. Alt. 1300 ft.
25321. Cyperus. Cleared hillside with Molasses Grass. Alt. 1300 ft.
25322. Herb with blue flowers. Bank of stream in pasture. 1300 ft.
25323. Same sp., flowers white. " " " " " " "

June 11. Forest S.W. of Cimitarra, in headwaters of Quebrada San Juan, 100 km. N. of Velez
25324. Remijia sp. Tree 12 cm. D.B.H.; flowers yellowish white; bark bright yellow within. 3 km. S.W. of Cimitarra. BARK 1500 ft.
25325. Remijia sp. Mass collection.
25326. Remijia sp. Seedlings 2 m. tall.
25327. Remijia sp. Tree 20 cm. D.B.H. BARK.
25328. "Bejuco de Gras" Long stout vine, source of drinking water. Forest about 4 km. S.W. of Cimitarra. Alt. 1650 ft.
25329. Remijia sp. Tree 12 cm. D.B.H. Forest about 4.5 km. S.W. of Cimitarra. Alt 1650 ft. BARK NMTT.
25331. Remijia sp. Mass collection.
25332. Remijia sp. Collected near Cimitarra by Richardo Carbagal. BARK 2.1 TCA. Dr. Bellis writes: "This sample was highly resinous, very dark colored and too difficult to clear the ppts. well enough to give wholly satisfactory results."

June 12. La Quitiana, near Quebrada San Juan, about 80 km. N. of Velez.
25333. Remijia sp. Tree 15 cm. D.B.H.; flowers white. Wooded ridge, 1400 ft. STIPULES, BARK Grahe negative.
25334. Remijia sp. Tree 12 cm. D.B.H. STIPYLES, BARK Grahe negative.
25335, Remijia sp. Mass collection.
25336. Remijia pedunculata. Tree 12 cm. D.B.H., stripped for about 1 m. STIPULES, BARK 2.0 TCA, less than 1.8 QS. Alt 1650 ft.
25337. Remijia pedunculata. Tree 10 cm. D.B.H. STIPULES, BARK 1.4 TCA.
25338. Remijia pedunculata. Trunk stripped 40 ck. STIPULES, BARK 1.5 TCA.
25339. Remijia pedunculata. Trunk 8 cm. D.B.H. STIPULES, BARK
25340. Remijia pedunculata. Trunk 12 cm. D.B.H., stripped 1 m. STIPULES, BARK.
25341. Remijia pedunculata. Trunk 12 cm. D.B.H. STIPULES, BARK 1.9 TCA.
25342. Remijia pedunculata. Trunk 15 cm. D.B.H., stripped 1.5 m. STIPULES, BARK 1.8 TCA, less than 1.7 QS.
25343. Remijia

SANTANDER DEPARTMENT

25343. Remijia pedunculata. Mass collection. Alt. 1650 ft.
25344. Ladenbergia? Trunk 30 cm. D.B.H.; flowers white. Alt. 1650 ft. BARK Grahe Negative.
25345. Remijia sp. 1400 ft., with # 25333-35. STIPULES.
25346. Phytolacca. Mass collection. Pastured clearing, 1350 ft.

June 14. La Union, about 110 km. N. of Velez. Wooded ridge.
25347. Remijia sp. Trunk 10 cm. D.B.H. STIPULES, BARK Grahe negative.
25348. Remijia sp. Trunk 8 cm. D.B.H. STIPULES, BARK Grahe negative.
25349. Remijia sp. Trunk 12 cm. D.B.H. STIPULES.
25350. Remijia sp. Trunk 6 cm. D.B.H. STIPULES.
25351. Remijia sp. Mass collection.
25352. Remijia.sp. Corollas on the ground; white, mostly 5-parted, a few 4-parted.
25353. Andropogon. Cleared spot on ridge.

June 15. Puerto Olaya. Alt. about 400 ft.
25354. Salvinia. Edge of stream.
25355. Gramineae. Stems rooting at nodes, trailing in water.
25256. Pteridophyta. Floating on surface of water.
25357. Cyperaceae. Wet swale.
25358. Echinochloa. In shallow mud on a bridge.
25359. Cyperaceae. Wet swale.
25360. Azolla. Floating in quiet water.
25361. Salvinia. Edge of stream.
25362. Lemna. Edge of stream.
25363. Spirodela. Floating in quiet water with Azolla.
25364. Gramineae. 2 m. tall. Roadside ditches and along Rio Magdalena.
25365. Ludwigia? Petals 5, yellow. Roadside ditch.
25366. Leguminose. Shrub. Roadside.
25367. Canna. Flower scarlet. Roadside ditch.
25368. Euphorbia. Roadside.
25369. Leguminosae. Leaves sensitive. Roadside.
25370. Commelina. Roadside.

June 16. Puerto Olaya. Alt. about 400 ft.
25371. Utricularia. Quiet pool.
25372. Shrub said to poison bulls. Finca of Amilio Piedrahata, 6 k. E. of Puerto Olaya.
25373. Cyperaceae. Shallow water of swale, about 7 km. E. of Puerto Olaya.

June 17. Finca of Amilio Londoño, 6 km. W. of Puerto Aquileo
Alt. about 450 ft.
25374. Gramineae. One patch in recently cleared and burned land; the fine masses of panicles look like white mist in the sunshine.
25375. Phytolacca. Mass collection. Recently cleared and burned land.
25376. "Saiba". Tree, sometimes very large, with spiny trunk; milky juice said to be used for fish poison

June 18. 6 Km. W. of Puerto Aquilio.
25377. Mimosa. Roadside.

June 18. Agua Fria, near Cimitarra, 100 km. N. of Velez.
25378. Heliconia. Leaf blades 1.5 m. long, petioles a little longer; inflorescence pendulous; bracts yellow and red. Low ground along Rio Guayabita.

June 19. About 90 km. N. of Velez.
25379. Lemna. Small pool in stream, about 10 km. S.E. of Cimitarra.

June 19. Densely wooded ridge, La Venezia, near Jordan, 50 km. N. of Velez. Alt. 2800 ft.
25380. Remijia pedunculata. Tree 10 cm. D.B.H. STIPULES, BARK
25381. Remijia pedunculata. Tree 10 cm. D.B.H. STIPULES, BARK.
25382. Remijia pedunculata. Tree 10 cm. D.B.H. STIPULES, BARK
25383. Remijia pedunculata. Tree 10 cm. D.B.H. STIPULES, BARK.

June 20. Steep wooded hillside, La Florez, 85 km. N. of Velez. 2050 ft.
25384. Rubiaceae. Tree 10 cm. D.B.H. STIPULES, BARK Grahe negative
25385. Rubiaceae. Plants 2 m. tall.
25386. Tree 8 cm. D.B.H. STIPULES, BARK Grahe negative. Rubiaceae.
25387. Rubiaceae. STIPULES, BARK Grahe negative.
25388. Ipecacuanha? Plants rare, growing singly.
25389. Ipecacuanha? Mature berries blue.
25390. ? Berries xxxe red; petals white.
25391. Rubiaceae. Tree 7 cm. D.B.H. STIPULES, BARK.
25392. Rubiaceae. Tree 5 cm. D.B.H.? STIPULES, BARK Grahe negative.

June 21. "Nueva York", finca in the hills between Landazuri and La Florez, about 75 km. N. of Velez. Alt. 3650 ft.
25394. Remijia pedunculata. Tree 15 cm. D.B.H. STIPULES, BARK
25395. Remijia pedunculata. Trunk 8 cm. D.B.H. STIPULES, BARK 1.2 TCA
25196. Remijia pedunculata. Tree 8 c.. D.B.H. STIPULES, BARK 0.7 TCA
25397. Remijia pedunculata. Tree 8 c,. D.B.H. STIPULES, BARK 1.0 TCA
25398. Remijia pedunculata. Fruits from tree previously felled.
25399. Remijia pedunculata. Mass collection.
25400. Remijia pedunculata. Fruits from tree previously felled.
25401. Remijia pedunculata. Tree 5 cm. D.B.H. STIPULES, BARK 1.0 TCA
25402. Canna. "Sugo" Cultivated.
25403. Cinchona "enleana. Flowers with odor of jasmine.

June 25. Cimitarra, 100 km. N. of Velez.
25204. Ludwigia. Flowers yellow. Wet margin of small stream.
25405. Creeping vine. Flowers yellow.

June 27. Landazuri, 70 km. N. of Velez.
25406. Gramineae. On wet cliff.
25407. Cephaelis. Dense woods, "Alta Mira", 15 km. N. of Landazuri.

June 28. Landazuri, 70 km. N. of Velez.
25408. Phalloid. On rotton log, "Mira Alta", 15 km. N. of Landazuri.

SANTANDER DEPARTMENT

June 29. Cerro de Armas region, about 90 km. N. of Velez.
25409. Root parasite? Corolla purple, 6-parted, 2 lobes larger; young fruit white; stem and scale leaves dark purple. Deep forest, Cerro la Isla. Alt. 3000 ft.
25410. Melastomaceae. Pubescence purple; inflated leaf-bases with ants; young fruit orange. Deep forest, Cerro la Isla. Alt 3000 ft.
25411. Rubiaceae. Deep forest, Cerro la Isla. Alt 3000 ft.
25412. Cinchona Humboldtiana. Near Cerro de Paramo, Alt. 3000 ft.
Collecter Jaime Llobell E.

June 30. Cerro de Paramo, Cerro de Armas region, 90 km. N. of Velez
25413. Rubiaceae. Flower white, slightly yellowish outside, with odor of Jasmine. Exposed peak, 6200 ft. BARK, Grahe negative.
25414. Rubiaceae. Trunk 8 cm. D.B.H. BARK Grahe negative
25415. Orchidaceae. Forming dense thickets 2 m. high. Alt. 6000 ft.
25416. Bifaria? Shrub paramo, Alt. 6200 ft.
25417. ? Shrub paramo, alt. 6200 ft. Bracts & flowers deep pink.
25418. Musci. Draping tree trunks for 2 m. Alt. 6200 ft.
25419. Musci. Draping tree trunks for 2 m. Alt. 6200 ft.
25420. Pteridophyta. On tree trunks. Alt. 6200 ft.
25421. Lycopodium. Stem 2 m. long. Alt. 6000 ft.
25422. Cinchona sp. Wooded ridge at 5300 ft. (occurs to 6000 ft).
25423. Cinchona sp. Mass collection. No leaves with red veins.
25424. Root parasite? Lower stem purplish, rest of plant white. Deep woods, 6000 ft.
25425. Goodyera? Deep woods, 5500 ft. Leaves reddish on smaller plant.

July 1. Cerro de Armas region, about 90 km. N. of Velez.
25426. Araceae. In clearing, Cerro la Isla, 3000 ft. Petiole 1.5 m. long, rolled at base, green and marked with whitish; blade 2-parted; corm 1 cm. in diameter, said to be ground and used for snake bite.
25427. Rubiaceae. Tree 12 cm. D.B.H.; buds dee pink much like Cinchona pubescens. Near headwaters of Quebrada de Armas, about 4500 ft.
25428. Rubiaceae. Flowers white. Deep forest near headwaters of Quebrada de Armas.
25429. "Yerba Crista" Each leaf with 1 or 2 blood-red spots; flowers yellow. Deep forest, Cerro la Isla, 3000 ft.
25430. Commelinaceae. Plants 2 m. tall; flowers white, deep pink at base. Rocky stream-bed in dense woods, Cerro la Isla, 3500 ft.
25431. ? Vine said to have been used by the Indians for poisoning arrows; also sold in the market at Velez, the guides know not why.

July 2. Cerro de Paramo, Cerro de Armas region, 90 km. N. of Velez
25432. Gentianaceae? Flower scarlet. Shrub paramo, 6200 ftl
25433. Bromeliaceae. Arboreal, 6200 ft.
25434. Bromeliaceae. Flowers scarlet. Arboreal, 6200 ft.
25435. Neurolepis? Selected small specimens; some are 1.5 m. long. Roots coated with clear colorless jelly. Called "Langua jira2 and said to be characteristic of tierra fria and often to grow with quina.

July 3. Landazure, 70 km. N. of Velez.
25436. Melastomaceae. Inflated leaf-bases inhabited by ants. Woods about 10 km. N. of Landazuri.

SANTANDER DEPARTMENT

July 4. East side of Rio Guayavita, on wooded hillside 10 km. S. of Cimitara, about 90 km. from Velez. Guided by Luis Rubiano.

25437. "Ipecuanha morada" About 20 plants in area of 2 m. in diameter. Rootstocks 12-15 mm. thick; berries blue. ROOT SAMPLE.
25438. "Ipecacuanha amarilla" Same locality. Berries said to be yellow.
25439. "Ipecacuanha amarilla" Same locality, low ground along river. Five plants in area of 2 m. ROOT SAMPLE.
25440. "Ipecacuanha amarilla" 5 plants seen. ROOT SAMPLE.

BOYACA DEPARTMENT

July 6. Paramo between Tunja and Arcabuco.

25441. Phytolacca. Roadside.
25442. Polytrichum.
25443. Oxalis. Flowers yellow.
25444. Oxalis. Flowers yellow.
25445. Viola. Calyx purple; corolla white.
25446. Compositae.
25447. ?
25448. Vicia?
25449. Cladonia.

July 6. Paramo south of Tunja, on road to Bogota.

25450. Dicronema?
25451. Hypericum. Flowers yellow.

CUNDINAMARCA DEPARTMENT

July 14. Roadside, 23 km. N. of Bogota.

25454. Oxalis. Leaves fleshy; flowers yellow.
25455. Oxalis. Flowers yellow.
25456. Oxalis. Stems creeping; flowers yellow.
25457. Oxalis. Stems creeping; flowers yellow.
25458. Spergula.
25459. Prunus. Tree 20 cm. D.B.H.
25460. Prunella.
25461. Prunella.
25462. Galinsoga. Rays white above, purple beneath.
25463. Achillaea. Rays purple. Pasture near road.

SANTANDER DEPARTMENT

July 16. Wooded ridge, 1350 ft., Cimitarra, 100 km. N. of Velez
25466. Melastomaceae. Flowers white. Edge of woods.
25467. Remijia pedunculata. Tree 12 cm. D.B.H. Bark & twigs pickled for morphological study; STIPULES, BARK F.& TCA.

July 16. Forest 3 km. S.W. of Cimitarra, 1600 ft., 100 km. N. of Velez
25468. Remijia sp. Tree 14 cm. D.B.H. Bark & twigs pickled for morphological study; STIPULES, BARK.
25469. Remijia sp. STIPULES.

July 17. Wooded ridge. 1350 ft., Cimitarra, 100 km. N. of Velez
25470. Remijia pedunculata. One of trees cut as #25314-18. STIPULES only.
25471. Remijia pedunculata. One of trees cut as # 25314-18. STIPULES only
25473. Remijia pedunculata. One of trees cut as #25413-17. STIPULES only
25473. Remijia pedunculata. Bark & twigs pickled for morphological study; STIPULES.
25474. Remijia pedunculata? Tree 2 m. tall., 4 cm. D.B.H., with many large-leaves sprouts. STIPULES.

July 17. Wooded hillside near Quebrada San Juan, 17 km. N. of Landazuri, about 90 km. N. of Velez. (Same as Fosberg & Fassett #21830-42).
25475. Remijia pedunculata. Bark & twigs pickled for morphological study; STIPULES.
25476. Remijia pedunculata. STIPULES.
25477. Rubiaceae. Like #25384-87.
25478. Remijia pedunculata. Small plant 2 m. tall.

July 18. Jordan, 50 km. N. of Velez.
25479. Remijia pedunculata. Hilltop called "Jordan." STIPULES; BARK collected with Lieut. Ronzani for his fresh bark extraction.
25480. Cinchona sp. (See #25282) wooded ridge, San Jeronimo. Bark & twigs pickled for morphological study.
25481. Cinchona Henleana. Along path to La Venezia. Bark & twigs pickled for morphological study.
25482. Remijia pedunculata. Tree 10 cm. D.B.H. Hilltop called "Jordan" STIPULES; BARK collected with Lieut. Ronzani for his fresh bark extraction.
25483. Remijia pedunculata. Tree 25 cm. D.B.H. Hilltop called "Jordan." STIPULES; BARK; bark & twigs pickled for morphological study.
25484. Remijia pedunculata. Small tree 4 cm. D,B,H. STIPULES.
25485. Remijia pedunculata. Tree about 10 cm. D.B.H.? STIPULES.

July 19. Roadsides 17-18 km. N. of Velez.
25486. Phytolacca. Mass collection.

July 20. Oiba.
25487. Gyneriu[illegible]

SANTANDER DEPARTMENT

July 21. Roadside 12 km. N. of Socorro. Alt. 5400 ft.
25488. Rubiaceae. Tree 6 m. tall; flower sith odor of jasmine; corolla white turning cream-yellow. Bark & twigs pickled for morphological study.

July 22. City streets, Zapatoca. Alt. 5650 ft.
25489. Oxalis. Flowers yellow.
25490. Ambrosia. Foliage fragrant.
25491. Malva. Flowers light blue.
25492. Panicum.
25493. Setaria.
25494. Sporobolus?
25495. Gramineae. Spikelets purple-green.
25496. Gramineae.
25497. Digitaria.
25498. Lepidium.

July 22. Dry hillside ½ km. S. of Zapatoca. Alt. 5650 ft.
25499. Gramineae.
25500. Chlorideae.
25501. Galium. Flowers lemon-yellow.
25502. Chlorideae?
25503. Bidens.
25504. Setaria. Setae and styles red.
25505. Sporobolus? Spikelets reddish.
25506. Lichen. Yellow-orange.
25507., Eryngium. Flowers white.
25508. Cenchrus.

July 23. Mountain west of Zapatoca.
25509. Onoclea? Among dry rocks. Alt. 5000 ft.
25510. Hiereaium. Dry pasture. Alt. about 7500 ft.
25511. Lepidium. Weed in finca on W. side of mountain. Alt. 8000 ft.
25512. Polygonum. "Barbasco" Weed in finca. Alt. 8000 ft.
25513. Cinchona pubescens. Tree 1 m. D.B.H., broken and with only one remaining branch 0.5 m. in diameter. Woods on W. side of mountain. Bark & twigs pickled for morphological study; BARK. Alt. 8400 ft.
25514. Andropogon. Dry pastured mountainside. Alt. 6400 ft.
25515. Gramineae. Tufted. Dry pastured mountainside. About 7000 ft.
25516. Orchidaceae. Flowers rose-color. 8200 ft., on E. side of mountain.
25517. Orchidaceae. Flowers rose-color. 8400 ft., on E. side of mountain.
25518. Ophioglossum. In Polytrichum mat on a flat rock. Green portion fleshy. E. side of Mountain, 8300 ft.
25519. Cruciferae. Flowers purple. On moist banks, 8300 ft
25520. Galinsoga. Rays white; tubes yellow. Grassy hillside, 8300 ft.
25521. Galinsoga. Rays and tubes yellow. Grassy hillside, 8300 ft.
25522. Caryophyllaceae. Moist bank, 8300 ft.
25523. Caryophyllaceae. Moist bank, 8300 ft.
25524. Caryophyllaceae. Moist bank, 8300 ft.
25525. Caryophyllaceae. Moist bank, 8300ft.
25526. Caryophyllaceae. Moist bank, 8300 ft.
25527. Commelina. Flowers white. Grassy hillside, 8300 ft.

July 24. Zapatoca

25528. Labiatae. Said to be haemostatic. Thickets in pasture S. of town.
25529. Dry rocky hillside W. of town. Alt. 5700 ft.
25530. Dry rocky hillside W. of town. Alt. 5700 ft.

July 25. West of S. Vicente de Chucuri.

25532. Bidens. Roadside, Nuevo Mundo, valley of Quebrada laLlana.
25533. Cyperaceae. Cement foundation under bridge, Q. la Llana.
25534. Gramineae. Wooded bank, roadside. Nuevo Mundo, near Rio Oponcito.
25535. Leguminosae. Moist brnk near Rio Oponcito.
25536. Mimosa. Flowers white. Roadside weed, Nuevo Mundo.
25537. Mimosa. Flowers pink. Roadside weed, Nuevo Mundo.

July 26. Junction of roads to Bucaramanga and to Zapatoca, 3 km. E. of S. Vicente de Chucuri. Alt. 2800 ft.

25538. Apocynum. Flowers orange.
25539. Leguminosae.
25540. Mimosa. Flowers pink.

July 28. Chima.

25541. Rubiaceae. Tree in forest along Quebrada Chima, 10 km. W. of Town.
25542. Rubiaceae. Tree in forest along Quebrada Chima, 10 km. W. of town.

July 29. Mountains west of Chima, valley of Quebrada Chima.

25543. Cinchona Henleana. Forested hillside along Q. Chima. 4200 ft.
25544. Habenaria. Grassy hillside. 4800 ft.
25545. Cinchona Henleana. Forested hillside. 4700 ft.
25546. Tree called "Quino" and said to be used for paludismo. Alt. about 4600 ft.

July 30. Headwaters of Q. Chima, in mountains west of Chima.

25547. Cinchona officinalis. Tree 15 cm. D.B.H.; flowers dark red; stipules green. Dense forest at 7500 ft. Bark & twigs pickled for morphological study; BARK.
25548. Cinchona officinalis. Tree 15 cm. D.B.H. BARK.
25549. Pteridophyta. On rock slide in stream, under swift water after a rain. 7700 ft.
25550. Phytolacca. Clearing at 8100 ft; only 2 plants seen.
25551. Physalis. Corolla yellow with black markings. Clearing at 8100 ft.
25552. Cinchona sp. Midrib light red above. Deep wooded canyon at 7600 ft. BARK.
25513. Cinchona sp. Midrib not red. Deep wooded canyon at 7600 ft. BARK.
25554. Quercus. Single tree in clearing, 30 cm. D.B.H. 5700 ft.
25555. Rynchospora. Grassy mountainside, 7600 ft.
25556. Gramineae. Culms tufted; spikelets brown. Grassy mountainside at 7600 ft.
25557. Eriocaulaceae. Grassy mountainside at 7600 ft.

July 31. Headwaters of Q. Chima, in mountains west of Chima
25558. Ladenbergia magnifolia (fide Fosberg). Leaves very pale red or green in veins; capsule splitting from below; flowers white. Edge of clearing at 5300 ft. Bark & twigs pickled for morphological study; BARK.
25559. Leonurus. Flowers purple. Land pastured by hogs, about 5000 ft.
25560. Habenaria. Flowers green. Grasslands at 6500 ft.

August 1. San Antonio, in drainage of Q. Chima west of Chima.
25561. Ladenbergia. Tree 12 cm. D.B.H. Wet woods at 7800 ft. Bark and twigs pickled for morphological study.
25562. Habenaria. Flowers green with whitish spur. Grassland, 7000 ft.
25563. Ladenbergia. Forest at 7200 ft.
25564. Orchidaceae. Flower yellow with red-brown stripes. Forested ridge, 8000 ft.
25565. Orchidaceae. Flowers yellow; lip with a scarlet spot. Forested ridge, 8000 ft.
25566. Orchidaceae. Flowers crimson. Forested ridge, 8000 ft.
25567. Orchidaceae. Stem with crimson glutinous spots; flowers lemon-yellow, the column spotted with crimson. Forested ridge, 8000 ft.
25568. Orchidaceae. Flowers yellow; lip with a crimson spot. Forested ridge, 8000 ft.
25569. Gramineae. Culms 4 m. long; only a few dwarfed inflorescences not over-ripe. Shrubby sub-paramo, 8300 ft.
25570. Basidiolichen? Blue-green color. On bases of rotting treestrunks at 8200 ft.
25571. Basidiolichen? Blue-green color. On bases of rotting tree-trunks at 8300 ft.
25572. Basidiolichen? Blue-green color. On bases of rotting tree-trunks at 8200 ft.
25573. Cladonia. Among dwarfed trees on ridge at 8200 ft.
25574. Pteridophyte. On trunks of dwarfed trees on ridge at 8200 ft.
25575. Chusquea. In dense thicket at 7000 ft.

August 2. Near San Antonio, & Pan de Azucar drainage of Q. Chima, mountains W. of Chima.
25577. Ladenbergia magnifolia. Veins with little or no red pigment; in bud but flowers apparently white. Edge of forest at 6800 ft. Bark & twigs pickled for morphological work; BARK
25578. Cinchona pubescens. Leaves with red veins; flowers red. Edge of forest at 6800 ft. Bark & twigs pickled for morphological study; BARK.
25579. Manihot. Cultivated on north slope of San Antonio, about 6800 ft.
25580. Anaphalis? In cultivated land, north slope of San Antonio, about 6800 ft.
25581. Habenaria. ~~Habenaria.~~ Corolla yellowish-white. South slope of Pan de Azucar, 6400 ft.

SANTANDER DEPARTMENT

August 3. Mountains west of Chima, valley of Quebrada Chima.
25582. Corolla nearly white. Grassy hillside, 4800 ft. Habenaria.
25583. Phytolacca. Only 2 plants, along trail. About 4500 ft.

August 4. Weeds in patio, Cinchona Mission office, Bucaramanga
25584. Bidens
25585. Eragrostis. Between paving blockd
25586. Euphorbia. Between paving blocks
25587. Euphorbia

August 11. Path to El Carmen, 20 km. W. of San Vicente de Chucuri
25588. Jussieua? Flowers yellow; roots spreading and with long white outgrowths whose tips float on the surface. Shallow water, Quebrada de los Indios.
25589. Rubiaceae. Woods along Rio Oponcito. Alt. 1000 ft.
25590. Phytolacca. Along path near Rio Oponcito.

August 12. El Carmen region, SW. of S. Vicente de Chucuri.
25591. Rubiaceae. Small tree; flowers white, fragrant. Alt. 3000 ft. Bark & twigs pickled for morphological study.
25592. Remijia pedunculata. Tree 14 cm. D.B.H. Cerro de Quinol. Alt. 2800 ft. STIPULES, BARK 2.0 TCA, 0 QS.
25593. Remijia pedunculata. Tree 8 cm. D.B.H. Cerro de Quinol, Alt. 2800 ft. STIPULES, BARK 2.7 TCA, 2.2 QS.
25594. Remijia pedunculata. Tree 15 cm. D.B.H. STIPULES, BARK 2.4 TCA, 2.9 QS.
25595. Phytolacca. Along path.

August 13. El Carmen region, SW. of S. Vicente er Chucuri
25596. Ladenbergia magnifolia. Tree 30 cm. D.B.H.; flowers white; petioles and veins brown. BARK.

August 18. Sidewalk at wall of houses. and street, Oiba.
25597. Galinsoga
25598. Galinsoga

BOYACA DEPARTMENT

August 20. Roadside noth of Moniquira. Alt. 7200 ft.
25599. Ranunculus.

August 20. El Cidro, near S. el Pato, valley of Rio Pomera. 11 km. SE. of Moniquira
25600. Agrostis. Rock ledges in stream-bed.
25601. Panicum. Rock ledges in stream-bed.
25602. Paspalum. Rock ledges in stream-bed.
25603. Paspalum. Rock ledges in stream-bed.
25604. Carbophyllaceae. Hanging over rock ledge.
25605. Hypericum. Roadside.
25606. Erechtites. Folwers rose-color. Roadside.

BOYACA DEPARTMENT

25607. Orchidaceae. Flowers pink. Rock cliff of road-cut.
25608. Orchidaceae. Flowers nearly white. Rock cliff of road-cut.
25609. Orchidaceae. Flowers deep pink. Rock cliff of road-cut.
25610. Orchidaceae. Flowers pink. Rock cliff of road-cut.
25611. Gramineae. Forming stiff sod.
25612. Trifolium. Roadside.
25613. Leersia? Shallow water of roadside ditch.
25614. Hieracium. Path-side.
25632. Juncus. Grassy place.
25615. Lycopodium. Rock cliff of road-cut.
25616. Orchidaceae. Some flowers shite, others yellow, in same inflorescence. Rock cliff of roadside.
25617. Cyperus. Roadside ditch.
25618. Commelina. Flowers blue. Roadside.
24619. Tillaea. Muddy roadside ditch.
25620. Medicago. Roadside.
25621. Oxalis. Flowers yellow. Rocky road-cut.
25622. Sisyrinchium. Flowers blue. Roadside.
25623. Cyperus. Roadside ditch.

August 20. In saturated Sphagnum overlying sand, La Cumbre, drainage of RioPomera, 14 km. NW. of Arcabuco. 8000 ft.

25634. Utricularia. Flowers purple.
25625. Utricularia. Flowers yellow.
25626. Lycopodium
25627. Rynchospora
25628. Xyris. Flowers white
25629. Eriocaulaceae. Large compact clump mixed with Sphagnum.
25630. Eleocharis
25631. Xyris. Flowers yellow.
25632. (See after #25614)

August 20. Cabyon of Rio Pomera, 11 km. NW. of Arcabuco. 8600 ft.

25633. Eriocaulaceae. Wet roadside at foot of cliff
25634. Sisyrinchium. Flowers yellow. Grassy roadside
25635. Orchidaceae. Sepals red at base and on tails, yellow in middle; petals yellow. Mossy cliffs.
25636. Utricularia. Upper sepal metalic purple, lower sepal greenish-yellow; petals pastel purple, throat yellow, spur white. In Sphagnum on perpendicular road-cut.

August 20. North end of canyon of Rio Pomera, near top of cliff, 13 km. NW. of Arcanuco. 9200 ft.

25637. Lycopodium. Trailing over cliff.
25638. Lycopodium, Trailing over cliff.
25639. Eleocharis. Roadside ditch.
25640. Sisyrinchium. Flowers yellow. Grassy roadside.
25641. Juncus. Moist bank.
25642. Hypericum. Roadside.
25643. Juncus. Roadside.
25644. Eleocharis. Shallow water of roadside ditch.
25645. Sisyrinchium. Roadside
25646. Lycopodium. Roak cut.
25647. Juncus. Roadside ditch.
25648. Juncus. Roadside ditch.

BOYACA DEPARTMENT

August 20. 6 km. NW. of Arcabuco, on savanah.
25649. Lycopodium. Hanging over bank, road-cut.

August 20. Canyon of Rio Pomera, 10 km. NW. of Arcabuco
25650. Cinchona pubescens.

CUNDINAMARCA DEPARTMENT

August 27. Vereda de Rozo, Sabana de Bogota, 4 km. S. of Cota, 30 km. NW. of Bogota
25651. Rumex. eed in cultivated land
25652. Rumex. Fence-row.
25653. Artemisia? Plant fragrent. Weed in cultivated land.
25654. Spergula. Weed in corn field.
25655. Lepidium. Weed in corn field
25656. Polygonaceae. Stem and old leaves red;,flowers rose; green leaves with a red blotch. Weed in corn field.
25657. Polygonum. Flowers rose; leaves with a red blotch. Weed in corn field.
25658. Polygonaceae. Same as #25656, but dark red. Weed in corn field
25659. Oenothera. Leaves green, turning dark red in age; petals yellowish green, turning orange. Weed in corn field.
25660. Liliaceae. Sepals orange-yellow with 3 green lined; petals orange-yellow with 3 very slender green lines. Weed in corn field.
25661. Leontodon. Flowers bright yellow. Weed in corn field.
25662. Lychnis? Flowers light pink of white; inflorescence with short-stalked glands and long glistning hairs. Weed in corn field.
25663. Viola arvensis. Flowers cream-yellow. Weed in corn field and fence-row,
25664. Primulaceae? Corolla deep blue, dark red at base; filaments dark red; anthers yellow. Among grass, fence-row.
25665. Oenothera, same as 25656. Among grass, fence-row.
25666. Primulaceae?, same as #25664. Filaments white at base, purple above. Weed in corn field.
25667. Oxalis. Flowers yellow. Moist edge of earth dam.
25668. Polygonum. Stem, bracts, ocreae, and rachis of inflorescence dark red; flowers green at base and white toward tip. Moist spot under tree in pasture.
25669. Prunus. Tree in farm-yard.
25670. Jussiaea? Stems prostrate, rooting at nodes; petals yellow. Wet places.
25671. Veronica. Flowers white. Revently flooded irrigation ditch.
25672. Gnaphalium? Slightly fragrent. Roadside.
25673. Gnaphalium? Slightly fragrent. Roadside.
25674. Compositae. Weed in corn fieldw.
25675. Alnus. Fence-row near ir igation ditch.

August 27. Mule patch in Eucalyptus grove. foot of Cerro de Guadalupe, above Calle 4, Bogota
25676. Plantago
25677. Ranunculus. Petals pale greenish yellow with yellow scale. Making a close mat in a wet place.
25678. Ulex. Flowers yellow.
25679. Veronica.

CUNDINAMARCA DEPARTMENT

August 26. Bought in flower store in Bogota.
25680. Bromeliaceae? "Langostos" Flower with 2 inner bracts, petianth of 3 lance-linear magenta-rose separatesegments; stamens 6, long, hypogenous; anthers linear, basifixed; ovary superior, 3-celled, with numerous axial ovuled; stigmas capitate on long style.

SANTANDER DEPARTMENT

September 5. Headwaters of Q. Chirivití, W. of Galan
25681. Ladenbergia. Small tree in thicket left on burned hillside. 8300 ft.
25682. Viola. Flowers blue. Burned and cleared hillside, 8200 ft.
25683. Liliaceae. Flowers pale lilac. Burned and cleared hillside, 8200 ft.
25684. Lycopodium. Burned and cleared hil side, 8200 ft.
25685. Liliaceae, same as #25683. Flowers blue. Burned and cleared hillside. 8100 ft.
25686. Liliaceae, same as #25683. Flowers pale lilac. Burned and cleared hillsied. 8100 ft.
25687. Cyperaceae. Burned and cleared hillside, 7200 ft.
25688. Cladonia. Burned and cleared hillside, about 8050 ft.
25689. Cladonia. Burned and cleared hillside, about 8050 ft.
25690. Cladonia. Burned and cleared hillside, about 8050 ft.
25691. Cladonia. Burned and cleared hillside, about 8050 ft.
25692. Lichen. Thicket, 8300 ft.
25693. Ladenbergia. Flowers white. Dense forest. 8300 ft.
25694. Ladenbergia? Flowers (seen on another tree which could not be reached because of density of vegetation) white. Shrubby paramo near summit of ridge. About 9500 ft.
25695. Compositae. Flowers yellow. Cleared and burned hillside. About 8200 ft.
25696. Rhododendron? (but petals appear separate) Flowers deep pink; shrub 1 m. tall. Burned and cleared hillside. About 8000 ft.
25697. Orchidaceae. Flowers orange or purple-red. Burned and cleared hillside. About 8000 ft.
25698. Hypericum. Shrub less than 1 m. tall; flowers yellow. Burned and cleared hillside. About 8000 ft.
25699. Ericaceae. Shrub about 1 m. tall; flowers white. Shrub-paramo. 9000 ft.
25700. Loranthaceae. Leaves pale green; peduncles and fruit yellowish; flowers red. Shrub-paramo. 9000 ft.
25701. Shrub 1 m. tall; flowers dark blue; fruit red. Shrub-paramo. 9000 ft.
25702. Ericaceae. Shrub 1 m. tall; flowers white. Shrub-paramo. 9000 ft.
25703. Usnea. Shrub-paramo. 9000 ft.
25704. Ericaceae. Shrub 1 m. tall; bracts red. Shrub-paramo. 9000 ft.
25705. Loranthaceae. Same as #25700. Shrub-paramo. 9000 ft.
25706. Shrub 1 m. tall; flowers white. Shrub-paramo. 9000 ft.
25707. Orchidaceae. Epiphytic. Shrub-paramo. 9000 ft,
25708. Orchidaceae? Epiphytic, pendant. Shrub-paramo. 9000 ft.
25709. Cladonia. Shrub-paramo. 9000 ft.
25710. Cladonia. Shrub-paramo. 9000 ft.
25711. Shrub-paramo. 9000 ft.
25712. Bromeliaceae. Bracts red. Shrub-paramo. 9000 ft.

SANTANDER DEPARTMENT

September 6. Finca "Berlin", headwaters of ɥ, Chiriviti, west of Galan

25713. Cinchona officinalis. Tree about 6 cm. D.B.H. Only tree seen in the region. Edge of forest. 6500 ft.
25714. Caryophyllaceae. In molasses grass pasture. 6700 ft.
25715. Galium. Fruit orange. Molasses grass pasture. 6700 ft.

September 7. Finca "Berlin", headwaters of ɥ. Chiriviti, west of Galan. Alt. 6500-7000 ft.

25716. Cinchona sp. Densely forested mountain-side.
25717
25718.

September 8. "El Retiro", in "Cerro el Guiche, headwaters of ɥ. Chiriviti, west of Galan.

25719. Rubiaceae. Inflorescence axillary. Steep heavily forested mountain-side. 8400 ft.
25720. Rubiaceae. Inflorescence axillary. Steep heavily forested mountain-side. 8400 ft. BARK
25721. Ericaceae. Bracts red; flowers pink and white. Shrub-paramo at summit. 8900 ft.
25722. Orchidaceae. On mossy trunks of shrubs; flowers solid purple; leaves purplish. Shrub-paramo at summit. 8900 ft.
25723. Orchidaceae. Perianth yellow, lip marked with purple-brown; ovary red ish. Shrub-paramo at summit. 8900 ft.
25724, Orchidaceae. Flowers redppurphe; inflorescence terminating a naked stem 1 m. long. Shrub-paramo at summit. 8900 ft.
25725. Lycopodium. Sprawling over shrubs, 8500 ft.
25726. Orchidaceae. On tree-trunks. 8800 ft.
25727. Orchidaceae. On trunks of shrubs; ovary and leaves dark red. Shrub-paramo at summit. 8900 ft.
25728. Pteridophyte. Under shrubs in shrub-paramo. 8900 ft.
25729. Loranthaceae. Ovary brownish green; calyx orange. Shrub-paramo at summit. 8900 ft.
25730. Shrub with red flowers. Shrub-paramo at summit. 8900 ft.
25731. Orchidaceae. Like #25723. Shrub-paramo at summit. 8900 ft.
25732. Orchidaceae. On tree-trunk; flowers lemon-yellow.
25733. Orchidaceae. Flowers yellow with orange center. On tree-trunk, shrub-paramo near summit. 8900 ft.

September 9. Pasture, near finca "Berlin", headwaters of ɥ. Chiriviti, west of Galan. Alt. 6800 ft.

25734. Daucus.
25735. Sonchus. Growing singly, 1 m. tall; flowers yellow.
25736. Gnaphalium.
25737. Chenopodium.
25738. Erechtites. Flowers purple.

September 9. Wooded mountainside, finca "Berlin", headwaters of ɥ. Chiriviti, west of Galan. Alt. 7200 ft.

25739. Sanicula.
25740. Trailing on mossy log.

SANTANDER DEPARTMENT

September 9. Steep forested mountainside above finca "Berlin" in Cerro de Guiche, headwaters of Q. Chiriviti, west of Galan

25741. Orchidaceae. Flowers very pale greenish-white. Clump on trunk of small tree. 7200 ft.
25742. Lichen. "Lana" Branch of tree. 7200 ft.
25743. Sphagnum. Old leaves red. In a dense clump. 7300 ft.
25744. Orchidaceae? Stems 1 m. long, unbranched; bracts red; flowers pink outside, white within except for red lip. 7500 ft.
25745. Cinchona officinalis. Small tree, 2 cm. D.B.H., the only one seen. 7600ft.
25746. Usnea. Old plants red. 7700 ft.

September 9. On mossy tree trunks in rain-forest, Cerro de Guiche, above "El Retiro", headwaters of Q. Chiriviti, west of Galan. Alt. 8100-8800 ft.

25747. Orchidaceae. Corolla lobes purple, tails lighter.
25748. Orchidaceae. Flowers green and reddish.
25749. Orchidaceae. Flowers greenish.
25750. Orchidaceae. Flower pale yellowish, lip spotted with red.
25751. Orchidaceae. Flowers pale yellowish with red spots.
25752. Orchidaceae.
25753. Orchidaceae. Flowers pale red.
25754. Orchidaceae.

September 10. Valley of Q. Chiriviti, west of Galan on path to El Carmen.

25755. Polygala. Flowers purple. Dry rocks, about 4000 ft.
25756. Rubiaceae. Corolla tube purple, lobes green. Along pathway near quebrada. Alt. about 4000 ft.

September 16. Between Bucaramanga and Socorro.

25757
25758
25759

September 17. South of Socorro

25760
25761

September 18. 12 km. W. of Jesus Maria. Alt. 7000 ft.

25762. Ladenbergia. Veins of leaves red.
25763. Viburnum. Shrub 1 m. tall; flowers white; fruit dark blue.

September 19. Florian

25764. Peperomia. Mass collection. Roadside
25765. Polygonum. Mass collection. Roadside.
25766. Mikania? Climbing tangled vine; flowers white. Thicket along path.
25767. Eupatorium. 1 m. or more tall; flowers white. Thicket along path.

SANTANDER DEPARTMENT

September 20. Gentle slope, cut over 20 years ago, with scattered small trees and stump sprouts, intersected with paths. La Belleza, 10 km. N. of Florian. Alt. 6300 ft.

25768. Cinchona pubescens. Tree 12 cm. D.B.H.; veins red; young leaves pale red. BARK, SEEDS

25769. Cinchona officinalis. Stump sprout 8 cm. D.B.H.; flowers red. SEEDS, BARK 4.3 TCA, 0 QS.

25770. Cinchona officinalis. Stump sprout 8 cm. D.B.H. SEEDS, BARK 2.0 TCA.

25771. Cinchona officinalis. Seedling 3 cm. thick; stipules green when young, red in age.

25772. Cinchona officinalis. Tree 15 cm. D.B.H. Many capsules diseased and aborted. SEEDS, BARK 6.0 TCA, 0.3 QS.

25773. Fungus. On capsules of Cinchona officinalis #25772.

25774. Phytolacca. Mass collection. Clearing and pathway.

September 21. Road southwest from La Belleza to Otro Mundo, west of Florian.

25775. Cinchona officinalis. Tree 2 m. tall, x cm. D.B.H. 5600 ft.

26776. Phytolacca. Mass collection. Along path 8-14 km. from La Belleza. 2500-5000 ft.

25777. Phytolacca. Mass collection. Clearings, finca "Buenos Aires" 14 km. SW. of La Belleza. Alt. 2500 ft.

September 22. Q. la Quitaz, near Otro Mundo, W. of Florian. xxft.

25778. Leguminosae. Petals white with pink midrib and light pink near midrib. Alt. 850 ft.

25779. Leguminosae. Same as #25778, fruit. (Labelled #5784)

25780. Cacao. Small tree 3 m. tall. Hillside, 1400 ft.

25781. Cinchona Henleana. Wooded ridge near Buenos Aires. 2500 ft. BARK

September 23. Roadside southwest from La Belleza to Otro Mundo, west of Florian.

25782. Cinchona officinalis. Tree 10 cm. D.B.H., 6 m. tall. SEEDS, BARK 2.8 TCA. Alt. 5600 ft.

25783. Lichen? On Cinchona officinalis #25782.

25784. Cinchona sp. About 500 ft. (#25779 also bears this number)

September 24. NW. of La Belleza. Alt. about 6000 ft.

25785. Rubus. Primocanes branching. On limestone outcrop.

25786. Juncus. Pastured hillside.

25787. Juncus. Pastured hillside.

25788. Ranunculus? Standing water in sink-hole.

25787. Roripa? Standing water in sink-hole

25790. Cyperus. Standing water in sink-hole.

25791. Cinchona pubescens. Branch 8 cm. in diameter, on trunk 50 cm. D.B.H. About 1 km south of waterfall "La Humadora". BARK 6000 ft.

25792. Cinchona officinalis. Stump sprout 4 m. tall. 5 cm. thick. Residual tree in clearing near waterfall "La Humadora". Alt. 6000 ft. BARK.

25793. Cinchona officinalis . (same) SEEDS, BARK 4.0 TCA.

SANTANDER DEPARTMENT

September 25. East of La Belleza, on trail to Sucre.
25794. Typha. Small shallow pool. Alt. 7650 ft.
25795. Utricularia. Flowers yellow. Small shallow pool, alt. 7650 ft
25796. Callitriche. Small shallow pool. Alt. 7650 ft.
25797. Alga? Light green tufts on trunk of Cinchona pubescens,25789.
Wooded hillside. 7500 ft.
25798. Cinchona pubescens. Sprout 15 cm. thick on stump 30 cm. thick.
Wooded hillside. 7500 ft. SLEDS, BARK.
25799. Cinchona pubescens. Trunk 30 cm. D.B.H. Wooded hillside, 7500 ft.
BARK.
25800. Hypericum. Flowers yellow; fruit red. Rock-cut, pathway
about 6 km. E. of La Belleza. Alt. about 6500 ft.
25801. Phytolacca. Intermediate, flowers a little lighter than in
form with short inflorescence. Roadside about 4 km. E. of La Belleza.
Alt. about 6500 ft.
25802. Phytolacca. Mass collection. Roadside about 4 km. E. of
La belleza. Alt. about 6500 ft.

September 26. East of La Belleza, on trail to Sucre.
25803. Vaccinaceae. Shrub; juice orange. Alt. 7400 ft. About 6 km.
E. of La Belleza.
25804. Orchidaceae. Flowers white. About 6 km. E. of La Belleza.
Alt. 7400 ft.
25805. Lycopodium. Rock Bank, about 6 km. E. of La Belleza. 7100 ft.
25806. Cinchona pubescens? Leaves shining above, with red veins.
Roadside thicket, about 6 km. E. of La belleza. Alt. about 7000 ft.

September 26. "Moravia", level valley east of La Belleza. 7000 ft.
25807. Callitriche. Pool in pasture; terrestrial form on mud.
25808. Callitriche. Pool in pasture; aquatic form in 20 cm. water.
25809. Callitriche. Pool in pasture; subaquatic form at water's edge.
25810. Mimulus. Prostrate; corolla yellow, palate hairy and spotted
with light ~~xbm~~ brown. Muddy shore of stream.
25811. Equisetum. Muddy bank of stream.
25812. Cardamine? Muddy bank of stream and shallow water.
25813. Paspalum. Pasture.
25814. Juncus. Mass collection. Pasture.
25815. Flowers yellow. Among tree trunks at edge of stream.
25816. Fragaria. Achenes in pits about ½ the depth of the length of
the achene. On hummocks in pastured swamp.
25817. Epilobium. Stem and old leaves red; sepals and ovaries red or
green; petals white or pink on the same plant. Among grasses and
sedges in pastured swamp.
25818. Juncus. Pastured swamp.
25819. Gramineae. Spikelets purple. On rotting log in pastured swamp.
25820. Eleocharis. On old log in pool.
25821. Hieracium. Flowers yellow. Cleared woods along path.

September 26. In stream entering sink-hole, about 1.5 km. E. of
La Belleza. Alt about 6500 ft.
25822. Mimulus. Prostrate; corolla yellow, palate hairy and spotted
with light brown.

SANTANDER DEPARTMENT

September 26. La Belleza; bark sample sumbitted by Miguel Sanchez, probably from srme locality as #25782.
25823. Cinchona officinalis. BARK 3.0 TCA, 0 QS.

September 27. La Belleza,
25824. Cinchona pubescens. Trunk about 20 cm. D.B.H. Alt. 6100 ft. Pasture near waterfall "La Humadora." BARK.
25825. Cladonia. On old trunk, N.W. of La Belleza.
September 28. Road from La Belleza to Florian. Alt. about 6000 ft.
25826. Orchidaceae. Flower orange. On fence-post.

September 28. Roadsides E. of Florian.
25827. Malphigiaceae. Prostrate over slate-pile; keys red.
25828. Phytolacca. Intermediate in color, darker than type with long inflorescence and lighter than type with short,

CUNDINAMARCA DEPARTMENT
September 29. Villa Pinzon. Roadside. 6200 ft.
25829. Phytolacca. Flowers light purple; leaves not red.

September 29. Fallow field 39 km. N. of Bogota
25870. Polygonum. Mass collection

October 2. Between Soacha and El Colego, 35 km. W. of Bogota.
25840. Rubus. Stems ascending then arching, recurving to touch ground., 3-4 m. long. Clay bank.
25841. Rubus.
25842. Agrostis. Moss-covered rock-cut.
25843. Cardamine. Wet gully.
25844. Veronica. Flowers purple. Creeping on vertical wet mossy road cut.
25845. Equisetum. Clay and gravel roadside.
25846. Hydrocotyle. Creeping on vertical wet mossy rock cut.
25847. Eupatorium. Flowers purple; stems very viscid.. Thicket, path to Salto de Tequendama.
25848. Marathrum foeniculaceum - determined by A. Dugand. Foliage bright green; flowers purple-red. On rocks in Salto de Tequendama. Type locality.
25849. Alga. Filaments dark olive-green, with swollen joints. In shallow water at brink of Salto de Tequendama.
25850. Phytolacca. Stems and petioles red. Mass collection. Path to Salto de Tequendama.

October 6. Cerro de Guadelupe, Bogota. 9500 ft.
25851. Cyperaceae. Roadside ditch.

CUNDINAMARCA DEPARTMENT

October 8. Cerro de Montserate, Bogota

25852. Lycopodium. Under shrubs, paramo. 10000 ft.
25853. Chusquea. Steep shrubby hillside. 10000 ft.
25864. Aster? Stems shrubby, 1 m. tall; rays purple. 10000 ft.
25855. Lycopodium. Under shrubs, paramo. 10000 ft.
25856. Lycopodium. Under shrubs, paramo. 10000 ft.
25857. Lupinus. Stems creeping; petals purple-blue; standard light purple or white distally. 9500 ft.
25858. Gentianaceae? Corolla lobes light lilac, lined with dark lilac. Mountain crest. 10500 ft.
25859. Lycopodium. Among grass and shrubs, paramo, mountain crest. Alt. 10500 ft.
25860. Shrub 1 m. tall; corolla lobes 4, white, hairy at base within; stamens 4; style 1. Paramo, 10500 ft.
25861. Gramineae. Culms purple, in a dense tuft; spikelets nearly black. Dry mountain crest, 10500 ft.
25862. Scrophulariaceae. Whole plant viscid-glandular; calyx purple; corolla lemon-yellow. Among grass and shrubs, paramo, mountain crest. Alt. 10500 ft.
25863. Eucalyptus. Twigs and petioles red; fruit blue-glaucous. Mountain crest, 10500 ft.
25864. Scrophulariaceae? Corolla pale lilac and white. Among grass, paramo, mountain crest. 10500 ft.
25865. Umbelliferae. Among grass and shrubs. 10500 ft.
25866. Castilleja. Shrub 1.5 m. tall; bracts green
25867. Scrophulariaceae. Calyx dark red; corolla deep red; stamens yellow. Shrubby paramo. 10500 ft.
25868. Oxalis. Stems fleshy, sprawling and climbing among bases of shrubs. Shrubby paramo. 10500 ft.
25869. Oxalis. Stems fleshy, sprawling and climbing among bases of shrubs. Shrubby paramo. 10500 ft.
25870. Plantago. Descicated pathway back of church. 10500 ft.
25871. Plantgo. Descicated pathway back of church. 10500 ft.
25872. Orchidaceae. Corolla yellowish. Srassy paramo. 10500 ft.
25853. Hieracium. Flower yellow. Pathway, 10500 ft.
25874. Orchidaceae. Stems 1 m. long; flowers green, then lemon-yellow. Grassy paramo. 10500 ft.
25875. Compositae. Stems creeping on rocky cliff; flowers lavender. Alt. about 10000 ft.
25876. Lycopodium. Creeping, on shrub paramo. 10000 ft.
25877. Compositae. Flowers yellow; bracts purple-margined. Pastured foot-hills. Alt. about 8900 ft.
25878. Polygonum. Weed in cultivated land at foot of mountain. Flowers pink. Alt. about 8800 ft.
25879. Liliaceae. Mass collection. All flowers blue. Shrubby paramo. 10000 ft.
25880. Phytolacca. Mass collection. Flowers rose. Roadway along foot of mountain. Alt. about 9000 ft.

CUNDINAMARCA DEPARTMENT

25881. Polygonaceae? Main stem prostrate, branches erect. Cultivated land in foothills. Alt. about 8800 ft.
25882. Cyperaceae. Dry soil. About 9600 ft.
25883. Orchidaceae. Shrub paramo. About 10000 ft.
25884. Paspalum. Rachis and young spikeltes purple. Rocks, paramo. Alt. 10000 ft.
25885. Gramineae. Rocky paramo. 10000 ft.
25886. Lycopodium. Shrubby paramo. 10000 ft.

October 10. Sesquile.
25887. Rumex. Damp ground.
25888. Polygonum. Damp ground.
25889. Polygonum. Damp ground. One clone.

October 10. Choconta
25890. Lupinus. Low prairie between highway and railroad.
25891. Typha. Leaves exceed spikes. Wet ground between highway and railroad.

BOYACA DEPARTMENT

October 10. Monzano, south of Tunja.
25892. Datura. Semi-shrub, 2.5 m. tall. Corolla red distally, yellow proximally. Toadside.

October 10. Tunja.
25893. Leguminosae. Shrub 1.5 m. tall; flowers yellow. Roadsides and eroded fields.

October 11. Salt flats, Paipa.
25894. Juncus.
25895. Scirpus,
25896. Scirpus.
25897. Phytolacca. Mass collection.
25898. Phytolacca. Stem red.
25899. Spergularia?
25900. Juncus.

October 11. Cerinza
25901. Polygonum. Mass collection. Corn field.

October 11. Shrub paramo north of Belan. Alt. 10100 ft.
25902. Lycopodium. Roadside bank.
25903. Lycopodium. Roadside bank.
25904. Ranunculus. Roadside ditch.
25905. Ranunculus. Roadside ditch.
25906. Sisyrinchium. Flowers yellow. Roadside ditch.
25907. Epilobium. Calyx deep pink; corolla pale. Roadside ditch.

BOYACA DEPARTMENT

October 11. Shrub paramo north of Belen
25908. Eupatorium, Stems shrubby; young branches slightly glutinous; flowers purple. Roadside, 10200 ft.
25909. Vaccinium? Forming mats. 102000 ft.

October 11. Pool on paramo north of Belen. Alt. 10200 ft.
25910. Tillaea.
25911. Ranunculus. Blades floating.
25912. Eleicharis?

October 11. Sandy soil near Rio Susacon, SW. of Susacon
25913. Compositae. Flowe s white.

SANTANDER DEPARTMENT

October 12. Alto del Almorzadero, open paramo, north of Cerrito. Alt. 12000 ft.
25915. Cyperaceae? Forming dense mats; fruits stick in flesh.
25915. Lycopodium. In dense mats 50 cm. in diameter.
25916. Callitriche. In 20 cm. of water in pool.
25917. Tillaea. Bright green patches in 15 cm. water of pool.
25918. Callitriche. In about 30 cm. water in pool.
25919. Castilleja. Bracts green, with distal half scarlet; corolla green, orange-tipped. Saturated sod.
25920. Gentiana. Corolla lobes pale lilac with 5-7 dark veins; anthers brown.
25921. Lycopodium. Leaves on uproght stem mostly orange, those on creeping stems green with orange tips.

October 12. Paramo de Jurado, north of Cerrito. Alt. 10600 ft.
25922. Juncus. Roadside ditch.
25923. Rubus. Among rocks and shrubs.
25924. Lycopodium. Among rocks and shrubs.
25925. Juncus. In saturated soil.
25926. Juncus. In saturated soil.
25927. Juncus. In saturated soil.
25928. Rynchospora. In saturated soil.
25929. Eriocaulaceae. In saturated soil. Forming a dense mat 30 cm. in diameter.

NORTE DE SANTANDER DEPARTMENT

October 13. Mountains S. of Rio Chitaga, E. of Bata. Sarare Road.
25930. Melastomaceae. Flowers pink. Alt. 6100 ft.
25931. Pteridium. Alt. 6100 ft.
25932. Callitriche. Mats on damp ground near hut. Alt. 6500 ft.

October 14. Rio Chitaga, Sarare Road near Labeteca. Alt. 4200 ft.
25933. Marathrum (det. Dugand). Rocks in swift water.
25934. Marathrum. On rocks in swift water.
25935. Marathrum. On rocks in swift water.
25936. Tillandsia. On trees overhanging the river.

October 17. Cucuta. Low pasture along Rio Pamplonita. Alt. 700 ft.
25937. Rubiaceae. Shrub 1 m. tall; flowers white,
25938. Cyperus.
25939. Leguminosae. Tree; filaments white toward base, red toward apex.
25940. Equisetum. Stems 2 m. tall. Roadside ditch.

October 18. Road-cut in shale, Pamplona. Alt 7500 ft.
25941. Galium.

October 19. Paramo SE. of Pamplona, junction of Sarare Road
25942. Juncus bufonius. Roadside ditch.
25943. Taraxacum. Mass collection. Roadside.
25944. Santalaceae. Stem and calyx red; berry waxy white.
25945. Orchidaceae.
25946. Juncus.
25947. Xyris. Flowers yellow.
25948. Ranunculus. Flowers yellow.
25949. Liliaceae. Flowere white, orange with age.
25950. Eryngium.

October 20. Wooded hillside, Sarare Road E. of Bata. Km. 64. 6500 ft.
25951. Cinchona officinalis. Tree 5 cm. D.B.H. BARK. 4.7 TCA, 1.8 QS
25952. Phytolacca. Mass collection.

October 23. Estate of Don Juan Echeverria, E. of Toledo. 8500 ft.
25953. Cyperaceae. Clearing.
25954. Eleocharis. Clearing. (-55 C. pub. BARK 2.2 TCA
25955. Cinchona pubescens. No herbarium specimen; composite BARK sample from 11 trees. 3.2 TCA
25957. Phytolacca. Mass collection. Clearing. Flowers & stem deep purple.
25958. Epilobium. Clearing.
25959. Birds nest made of lichens.

October 24. Estate of Don Juan Echeverria, E. of ~~Bata~~ Toledo. Patch of forest. 6700 ft.
25960. Cinchona officinalis. Tree 14 cm. D.B.H.; corolla chocolate-purple. BARK. 4.0 TCA, 1.3 QS
25961. Cinchona officinalis. Tree 12 cm. BARK. 4.5 TCA, 1.3 QS
25962. Lichen? On Cinchona officinalis, # 25961.
25963. Cinchona officinalis. Tree 12 cm. D.B.H., previously stripped about 1 m. on one side. BARK. 4.0 TCA, 1.1 QS

NORTE DE SANTANDER DEPARTMENT

October 24. Estate of Don Juan Echeverria.
25964. Mimulus. Corolla yellow, the lip pubescent and spotted with orange. Wet soggy turf. 7600 ft.
25965. Azolla. Rock slide along stream. 7000 ft.
25966. Lolium. Clearing. 8500 ft.
Habenaria. Flowers yellow-green. Pasture. About 8000 ft.

October 25. Estate of Don Juan Echeverria, E. of Toledo
25968. Hypericum. Flowers dark yellow. Damp pasture. 6900 ft.
25969. Ranunculus. Flowers yellow. Damp pasture. 6900 ft.
25870. Cinchona officinalis. Trunk 12 cm. D.B.H. Woods. 6900 ft. 5.7 TCA, 2.0 QS
25971. Cinchona officinalis. Trunk 14 cm. D.B.H. Woods. 6900 ft. 6.2 TCA, 2.7 QS.
25972. Cinchona officinalis. Trunk 12 cm. D.B.H. Woods. 6900 ft. 3.9 TCA, 0.7 QS
25973. Cinchona officinalis. Corolla dark brownish-purple. Lone tree on steep molasses-grass pasture. 6800 ft.
25974. Echinochloa. Springy places in pasture. 6400 ft.

October 27. Roadsides, Toledo. Alt. 5100 ft.
25975. Eleocharis. Wet clay bank.
25976. Eupatoriae. Flowers blue, white in age.
25977. Tagetes. Foliage heavy-scented; flowers orange. Very abundant along roadsides in this region.
25978. Plantago. Clay bank.
25979. Chlorideae.

October 28. Finca Tapata, near Rio Culaga 20 km. N. of Toledo.
25980. Euphorbia. Red portion of uppermost leaves margined with black. Edge of pathway, Agua Caliente. 9600 ft.

October 28. Finca Tapata, near Rio Culaga 20 km. N. of Toledo
25981. Cinchona officinalis. Wooded hillside, Agua Caliente; a few small trees only. 7400 ft.
25982. Phytolacca. Mass collection along 200 m. of pathway, Agua caliente. 7400 ft.
25983. Melina. Along path protected from grazing by fense. 6900 ft.
25984. Lycopodium. Rocky pathway, Agua Caliente. 7600 ft.

October 28. La Rancheria, 23 km. N. of Toledo up Rio Culaga
25985. Radicula Nasturtium-aquaticum. In mud near spring.
25586. Radicula Nasturtium-aquaticum. Edge of water.
25587. Radicula Nasturtium-aquaticum. In water of spring.
25988. Phytolacca. Mass collection. Clearing.

NORTE DE SANTANDER DEPARTMENT

October 30. Valley of Rio Culaga N. of Toledo
25989. Phytolacca. Mass collection. Roadside 2.5-4 km. N. of Toledo
25990. Orchidaceae. Inflorescence viscid. Thicket about 12 km. N. of Toledo.
25991. Hypericum. Along pathway about 12 km. N. of Toledo.

October 20. Near Labateca.
25992. Malphigiaceae. Vine clambering over bushes near Rio Chitaga.

SANTANDER DEPARTMENT

October 31. Alto del Almorzado, north of Certito. 12500 ft.
25993. Potamogeton. In small pool.
25994. Eleocharis. In small pool.
25995. Juncus. In small pool.
25996. Carex. In small pool.
25997. Valerianaceae.
25998. Ranunculus. Flowers yellow. In small pond near the road.
25999 Juncus. In small pond near the road.

October 31. Capitanejo. Alt. 3950 ft.
26000. Cynodon. Dry roadside near mouth of Rio Servita.

November 5. Between Susucon & Capitanejo. Alt. 4200 ft.
26001. Graminene. Culms in tufts, 1.5 m. tall. Arid hillside.

NORTE DE SANTANDER DEPARTMENT

November 9. Near Quebrada Cueva, 15 km. N. of Cucutilla in valley of Rio Cucutilla. Alt. 7000 ft.
26002. Orchidaceae. Flowers purple. On boulders along stream.
26003. Orchidaceae. Perianth brown striped with purple. On boulders along stream.
26004. Phytolacca. Mass collection. Flowers brifgt purple. River gravels.

November 10. Steep wooded mountainside near Q. Cueva, 15. km. N. of Cucutilla in valley of Rio Cucutilla. Alt. 8200 ft.
26005. Cinchona officinalis. Tree 7 cm. D.B.H. Leaves not red. BARK.
26006. Cinchona officinalis. Tree 10 cm. D.B.H. Leaves not red. BARK.
26007. Cinchona officinalis. Leaves not red. BARK.
26008. Cinchona officinalis. Tree 14 cm. D.B.H. Leaves not red. BARK.
26009. Cinchona officinalis. Trunk 17 cm. D.B.H. Leaves not red. BARK.
26010. Graminene. Wet shaded pathway. Alt. 7000 ft.
26011. Lichens. On tree branches in swamp along stream. Alt. 7000 ft

November 12. "Capira", headwaters of Quebrada Carillo, 10 km. E. of Cucutilla.
26012. Cinchona officinalis. Tree 6 cm. D.B.H. Leaves not red. Alt. 7800 ft. BARK.
26013. Cinchona officinalis. Tree 5 cm. D.B.H. Leaves not red. Alt. 8400 ft. BARK.

NORTE DE SANTANDER DEPARTMENT

26014. Cinchona officinalis. Tree 8 cm. D.B.H. No red leaves. Alt. 8100 ft. BARK
26015. Taraxacum. Mass collections. Pasture. 7500 ft.
26016. Lycopodium. 8100 ft.
26017. Rubiaceae. Leaves purple-red beneath. Alt. about 7000 ft.
26018. Rubiaceae. Youngbtree about 3 m. tall. About 7000 ft.
26019. Rubiaceae. Young tree about 3 m. tall. About 7000 ft.

November 14. Valley of Quebrada Chicagua, north of Arboledas.
26020. Andropogon. Burned mountainside. Alt. 6800 ft.
26021. Orchidaceae. Lip yellow, flushed with orange-red onnupper surface; both sides pf corolla lobes yellow with orange-yellow spots; calyx-lobes yellow with orange-yellow spots inside, red-orange outside, revolute. Rocky ridge. Alt. 7600 ft.

November 15. Woods about Quebrada Cueva, north of Arboledas. 8000 ft.
26022. Cinchona officinalis. Tree 20 cm. D.B.H.; leaves not red. BARK
26023. ~~Cinchona~~ officinalis. Tree 8 cm. D.B.H.; leaves not red. BARK
26024. Cinchona officinalis. Tree 3 cm. D.B.H.; leaves not red. BARK

November 18. Between Salazar and Santiago
26025. Nymphaea. Petals white with green veins. In small pool.

November 19. North of Lourdes, between Gramalote & Sardinata.
26026. Eriocaulaceae. Wet roadside bank. Alt. about 4000 ft.

November 21. "Las Mesas" in valley of Quebrada Playona, between Gramalote and Sardinatas.
26027. Cinchona officinalis. Trunk 15 cm. D.B.H., stripped on one side for 1.5 m. Alt. 6000 ft. BARK
26028. Cinchona officinalis. Trunk 12 cm. D.B.H.; corolla tube red, lobes nearly black. Alt. 6200 ft. BARK
26029. Cinchona officinalis. Trunk ~~12 cm. D.B.H.~~ 8 cm. D.B.H. 6200 ft. BARK
26030. Cinchona officinalis. Trunk 13 cm. D.B.H. Alt. 6000 ft. BARK

November 24. Between Salazar and Santiago.
26034. Nym haea. In small pool

November 27. Mountains above "Villa Marina," between Pamplona and Bochalema. Alt. 8000 ft.
26031. Cinchona officinalis. Branch 14 cm., from trunk 25 cm. D.B.H. BARK
26032. Cinchona officinalis. Trunk 12 cm. D.B.H. BARK
26033. Cinchona officinalis. Tree 7 cm. D.B.H., 5 m. tall. BARK
26034. (see after 26030)
26035. Phytolacca. Mass collection along trail. Alt. about 6000 ft.
26036. Phytolacca. Mass collection along trail. Alt. about 60 0 ft.

NORTE DE SANTANDER DEPARTMENT

November 29. 6 miles north of Pamplona, junction of Sarare Road
26037. Juncus bufonius. Mass collection. Roadside ditch
26038. Phytolacca. Mass collection. Roadside.
26039. Alnus. Mass collection. Small trees bordering road.

November 30. Cordillera de Rio Colorado, km. 55 on Sarare Road, east of Bata
26040. Cinchona officinalis. Tree 5 cm. D.B.H. 5600 ft. BARK
26041. Cinchona officinalis. Trunk 14 cm. D.B.H., stripped for 2 m. BARK
26042. Cinchona officinalis. Trunk 8 cm. D.B.H. 5700 ft. BARK
26043. Cinchona officinalis. Trunk 16 cm. D.B.H. 5600 ft. BARK
26044. Rubiaceae. 5600 ft.
26045. Rubiaceae. 5600 ft.

All the names in this list are provisional only, and none of them are to be regarded as authentic identifications.

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